

COMMONWEALTH OF MASSACHUSETTS

HAMPDEN, ss.

SUPERIOR COURT
CRIMINAL ACTION
Nos. 85-5415, 5416,
5418, 5420, and 5425

COMMONWEALTH

HAMPDEN COUNTY
SUPERIOR COURT
FILED

vs.

JAN 26 2016

GEORGE D. PERROT

FINDINGS OF FACT, RULINGS OF LAW, AND ORDER ON
DEFENDANT'S MOTION FOR NEW TRIAL


CLERK OF COURTS

On December 14, 1987, a jury convicted the defendant, George D. Perrot ("Perrot"), of the unarmed robbery of Mary Prekop, Criminal Action No. 85-5415, the indecent assault and battery of Mary Prekop, Criminal Action No. 85-5416, the aggravated rape of Mary Prekop, Criminal Action No. 85-5418, the burglary and assault of Mary Prekop in a dwelling, Criminal Action No. 85-5420, and the burglary of Emily Lichwala, Criminal Action No. 85-5425. Perrot appealed his convictions and on June 4, 1990, the Supreme Judicial Court reversed the convictions. Commonwealth v. Perrot, 407 Mass. 539 (1990). On January 9, 1992, a jury convicted Perrot of the same offenses. The Appeals Court denied Perrot's appeal. Commonwealth v. Perrot, 38 Mass. App. Ct. 478, rev. denied 420 Mass. 1104 (1995). On April 25, 2000, Perrot filed a Motion for New Trial. On September 11, 2001, the court (Wernick, J.) allowed the motion. On May 12, 2003 the Appeals Court reversed the order allowing the New Trial Motion. Commonwealth v. Perrot, 58 Mass. App. Ct. 1102 (2003), rev. denied 441 Mass. 1104 (2004). Perrot filed two more motions for new trials both of which the Appeals Court dismissed for lack of prosecution. On July 8, 2014, Perrot filed his fourth Motion for a New Trial which is now before the court.

Exhibit A

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After a close review of the assembled record, including transcripts from the defendant's two trials, reviews by the trial court and appellate courts of requests for relief, and the evidence submitted on September 11 and 25, 2015, the court determines that "justice may not have been done" at Perrot's 1992 trial because of the introduction of hair evidence that in numerous and material respects exceeded the foundational science. In making that judgment, the court determines that it was not until decades after Perrot's 1992 trial that errors in testimony on hair evidence came to be authoritatively recognized and addressed. The 2008 National Academy of Science (NAS) report on the limits of hair evidence caused the FBI to audit hair evidence and to determine that Wayne Oakes' testimony at Perrot's 1992 trial contained seven occasions where Oakes exceeded the foundational science.

Based on the findings and rulings, Perrot's Motion for a New Trial is **ALLOWED** in part and **DENIED** in part. Specifically, it is **ALLOWED** as to indictments 85-5415, 85-5416, 85-5418 and 85-5420 and **DENIED** as to indictment 85-5425.

BACKGROUND

I. Facts

In the fall of 1985, the Springfield police were investigating a series of house breaks in the Malibu Drive neighborhood. Several of the break-ins involved sexual attacks on elderly woman. Perrot, then seventeen years of age, was a suspect in the investigation. Two break-ins occurred on November 30, 1985.

On that date, shortly after 3:00 a.m., Emily Lichwala's ("Lichwala") home at 33 Covell Street was breached. Lichwala awoke to the sound of someone trying to break into her kitchen through a locked door leading to the basement. After a few minutes of silence, Lichwala heard

glass shatter near a breezeway door that also led into her kitchen. Lichwala ran outside before encountering the burglar. Her pocketbook had been taken. Lichwala was unable to identify the intruder.

At approximately 4:00 a.m., Mary Prekop's ("Prekop") home at 27 Malibu Drive was breached. Prekop awoke to the sound of her dog barking by the kitchen door and went into her kitchen to investigate. Prekop opened the kitchen door but did not open the door after that which leads to the breezeway. She did not hear or see anything. After sitting in her living room for "a few minutes," she took a stick and went back to bed. Shortly thereafter, she heard someone come into the house; she took the stick and went to the kitchen to investigate. Prekop encountered the intruder, who pushed her into her bedroom where he struck her, indecently assaulted her, and raped her. Her change purse was taken. Prekop described the man who assaulted her as being clean shaven, with dark wavy hair, and wearing a blue jacket, dark pants, and white sneakers.

A week later, on the evening of December 6, 1985, Perrot drank and took drugs, including cocaine and eight Valium pills. He broke into Joseph McNabb's ("McNabb") house, but ran away when he realized that McNabb and his wife were home. He then stole a woman's purse outside a Denny's restaurant. Around 2:30 a.m. on December 7, 1985, Perrot went to his sister's, Nancy Westcott ("Westcott"), house at 87 Malibu Drive, where he lived, and passed out. A few hours later, the police arrived to arrest him. As he was being escorted to the police cruiser, he tried to escape. He was apprehended hiding in a backyard.

At approximately 4:30 a.m., Sergeant Thomas Kelly ("Sergeant Kelly"), who was in charge of the investigation of the attacks on elderly women, and another officer met with Perrot in an interrogation room. Perrot denied any involvement in the attacks on elderly women.

Sergeant Kelly terminated the questioning of Perrot at about 5:30 a.m. to help in the preparation of an affidavit to support an application for a warrant to search Perrot's residence. Perrot at his own request remained in the interrogation room rather than being returned to a cell.

Perrot was interrogated three more times on December 7 by Detective Thomas Jarvis ("Detective Jarvis"), also involved in the investigation of the attacks on elderly women. The interrogations took place at approximately 7:30 a.m., 12:30 p.m., and 3:00 p.m. At the 12:30 p.m. questioning, Perrot signed a form agreeing to furnish the police with blood and hair samples.

Perrot signed a statement admitting to the crimes of the previous evening even though the statement inaccurately identified the purse-snatch as occurring before the break-in.¹

At the 3:00 p.m. interrogation, Perrot signed a statement admitting to breaking and entering 33 Covell Street and 27 Malibu Drive. Perrot denied any assault. While giving his statement, Perrot became emotional, cried, and asked for Detective Jarvis's gun so he could shoot himself. Detective Jarvis asked that Perrot be placed on a suicide watch.

At 4:30 p.m., Prekop, Lichwala, Mae Marchand, and McNabb came to the police station for a lineup. Perrot had head hair that was on the longer/curlier side and facial hair, including a

¹ The statement read, in relevant part:

I walked up to Denny's Restaurant at Allen and Cooley Street. I went inside and had a coffee. After finishing my coffee I walked outside and noticed two girls walking from the parking lot toward Denny's. One of the girls had her pocketbook dangling. I ran over and grabbed the pocketbook and ran across Cooley Street toward my house on Malibu Drive. I went into my house and went into my bedroom. I checked the pocketbook for money and I only saw a little more than a dollar in change. I left the pocketbook in my room. I then left the house and started walking up Malibu. I walked over to Ellendale Street. I walked up to a house. I don't know the number and saw a broken broom handle in the carport. I kicked the front door in and started to walk around what I thought was a dining room. I had the broom handle in front of me so I would [sic] bump into anything. I started to hear a lot of voices. I got scared and ran out the front door. The reason I broke into the house was to get money for drugs. I ran back home and the police were there.

mustache and a goatee/beard, at the time of the lineup.² The lineup consisted of seven men, five of whom were police officers. None of the men in the lineup were clean shaven; all of them had a mustache and Perrot had a mustache and a goatee/beard. Neither Prekop, Lichwala, nor Mac Marchand identified Perrot as their assailant. McNabb positively identified Perrot as his assailant.

During their investigation, the police focused on three pieces of forensic evidence taken from the crime scene at Prekop's house: a bed sheet with blood on it, a pair of gloves with blood on them, and a hair removed from the bed sheet.

On December 2, 1985, a grand jury indicted Perrot for the offenses relating to the November 30, 1985 events.

II. First Trial

At the first trial, presided over by Judge Murphy, James Hammerschmith represented Perrot, and Francis Bloom ("Bloom") represented the Commonwealth.

In his opening statement, Bloom focused the jury's attention on the following pieces of evidence: the bed sheet,³ the gloves, Perrot's admission,⁴ and the hair and blood analysis.⁵ With respect to the hair analysis, Bloom stated that Wayne Oakes would testify that the two head hairs he analyzed "absolutely are not the head hairs from the head of Miss Prekop, and there are 15 to

² Westcott testified that Perrot had a mustache and a beard for "quite a while" before his arrest (Trial Tr. vol. 3, 540). As Judge Wernick stated "[b]y inference and by unconverted direct evidence, [Perrot] had this facial hair on November 30, 1985, as well." Mem. of Decision and Order on the Def.'s Mot. for New Trial, 3.

³ Bloom stated that the bed sheet would "become very crucial in this case." (Trial Tr. vol. 2, 182.)

⁴ Bloom stated that Perrot's admission "mirror[s]" what the victims will testify to except that Perrot did not admit sexually assaulting or beating Prekop. (Trial Tr. vol. 2, 189-190.)

⁵ Regarding the hair and blood analysis, Bloom stated: "At the end of this case, probably along with [Perrot's admission], is probably the most important part of this case." (Trial Tr. vol. 2, 190.)

25 characteristics in every strand of hair, and . . . every one of those characteristics from those two sample hairs that were found on the bed sheet are identical to every characteristic of the head hair that was pulled from [Perrot].” (Trial Tr. vol. 2, 192.) With respect to the blood analysis, Bloom stated that William Eubanks would testify that the blood on the gloves is consistent with Perrot’s blood and that the blood on the bed sheet is “absolutely not [Prekop’s], but on every genetic marker and characteristic is consistent with the genetic markers and characteristics [of Perrot].” (Trial Tr. vol. 2, 193-194.)

Prekop testified first for the Commonwealth. She testified that her assailant had his hands over his face, but she saw that he had “wavy hair, black wavy hair, and . . . had white sneakers on.” (Trial Tr. vol. 2, 204.) On cross examination, she reiterated that her assailant had black wavy hair and then the following exchange took place:

Q. What did the hair look like? Was it long hair or short hair?

A. No, it was -- it wasn’t

Q. Did it look neat?

A. Yes, it looked neat.

Q. Would it be fair to say it looked like he had recently had a haircut?

A. That’s right.

Q. And it was fairly short hair?

A. It was on the short side, his hair was. . . .

Q. And he was clean shaven, wasn’t he?

A. Yeah, he was clean shaven.

Q. Didn’t have a beard or moustache?

A. No.

Q. You’re certain of that, aren’t you? You’re certain that he was clean shaven?

A. Yes, he was clean shaven.

(Trial Tr. vol. 2, 228-230.)

Prekop also testified that about a week or ten days after the assault, she went to the police station for a lineup. (Trial Tr. vol. 2, 233.) Defense counsel then showed her a picture of a group

of people but she was unable to identify it as the group of people she saw that day. (Trial Tr. vol. 2, 233-234.) Prekop acknowledged that she looked at a group of people that day and that she told the police that she did not recognize any of that group of people as being the person who broke into her home. (Trial Tr. vol. 2, 235.)

Lichwala testified about the break-in at her house. She testified that she first heard the jolting of the door that leads from her basement to her kitchen; it was like someone was trying to open the door, but could not because it was bolted. (Trial Tr. vol. 2, 242, 243, 246.) She thought she heard footsteps going down the stairs. (Trial Tr. vol. 2, 244.) After a couple of minutes she heard a crash at her back breezeway door that also leads to the kitchen; it sounded like glass shattering. (Trial Tr. vol. 2, 245, 246.) She then heard another crash. (Trial Tr. vol. 2, 245.) She fled the house and never saw the person who broke into her home. (Trial Tr. vol. 2, 248, 259.) When she returned to the house later, she saw broken glass at the breezeway door and window. (Trial Tr. vol. 2, 249-250.) She also saw a pool cue that had been in her basement. (Trial Tr. vol. 2, 253.)

Marianne Popko, a Springfield police officer, testified as to the written statement she took from Prekop on November 30 at approximately 9:00 a.m. (Trial Tr. vol. 3, 94.) In relevant part, Prekop stated:

I can describe the man who broke into my home as a white male, about 20 to 30 years old, he had dark wavy hair and was clean shaven. He was average height and weight. He was wearing a blue jacket, it looked like nylon, and sneakers which were white. He was wearing [a] dark-colored pair of pants, they were neither jeans nor corduroy material. He was not wearing glasses. I didn't notice any jewelry or scars.

(Trial Tr. vol. 3, 96.)⁶

Detective Jarvis testified about Perrot's admission. Specifically, on December 7, 1985 at approximately 7:45 a.m., he gave Perrot his Miranda rights in relation to inquiring about the previous night's crimes. (Trial Tr. vol. 3, 133-134, 163.) Then he took him to be booked. (Trial Tr. vol. 3, 139, 164-165.) At approximately 12:30 p.m, Detective Jarvis met Perrot again, gave him Miranda warnings, and asked him to sign a search warrant waiver to take his hair and blood samples in connection with the Prekop break-in on November 30, 1985. (Trial Tr. vol. 3, 142, 169, 175-176.) Detective Jarvis fed Perrot and let him use the phone; Perrot also went to the bathroom and had coffee. (Trial Tr. vol. 3, 148-149.)

At approximately 3:00 p.m., Detective Jarvis sat down with Perrot to discuss the November 30, 1985 incidents. (Trial Tr. vol. 3, 149.) They talked for an hour and a half and Perrot signed a statement about the incidents. (Trial Tr. vol. 3, 150.) Detective Jarvis testified that Perrot was highly emotional during this time. (Trial Tr. vol. 3, 156, 179.) Sometimes Perrot would cry and sometimes he would shout; at one point, he asked Detective Jarvis for his gun so he could "blow [his] brains out." (Trial Tr. vol. 3, 156, 179-180.) Detective Jarvis gave Perrot Miranda warnings before he signed the statement. (Trial Tr. vol. 3, 155.) After the interview, Detective Jarvis placed Perrot on suicide watch. (Trial Tr. vol. 3, 180.)

Detective Jarvis read Perrot's statement into evidence:

My name is George Perrot, and I live at 87 Malibu Drive, and I am 17 years old. On November 30, 1985, I went to Brattleboro, Vermont, with Mike Edwards and Bob Timmerman and Jeff Atkinson. Mike was driving. We went to a bar called Flat Street. I started drinking about 8:00P.M., which was a Friday night. We also drank about a case

⁶ The end of her statement read: "When the police arrived, I noticed a pair of gloves on the foot of the bed. They aren't mine, I never saw them before." (Trial Tr. vol. 3, 96.)

of Bud. I took a purple mescaline on the way to Vermont. We stayed there until about 2:15 A.M. Michael dropped me off about 3:15 A.M. at my house.

I headed for number 33 Covell Street. The reason I went there was I heard it had been broken into before. I had a pair of my sister's gloves on. They were like wool gloves. I entered an unlocked rear breezeway door at 33 Covell Street. I kicked the rear inner door in. I entered the house and started looking through the house. I found a handbag and took it with me. I left through the rear door. I left the pocketbook a few houses down the street.

I left 33 Covell Street and went to 27 Malibu Drive. I opened the door to the breezeway and kicked the side door in. I started to go through the house and a little black dog started barking and I ran out the side door. This occurred about 4:00 A.M. on Saturday, November 30, 1985.

After this I went home. I had been drinking since about 7:00 P.M. that day and had also taken two purple mescaline pills.

(Trial Tr. vol. 3, 160-161.)

On cross-examination, Detective Jarvis stated that when he met with Perrot on December 7, Perrot had a beard and a moustache. (Trial Tr. vol. 3, 164.) The booking photograph, which the court admitted into evidence, shows Perrot with a beard, a moustache, and curly hair. (Trial Tr. vol. 3, 165-166.)⁷

Sergeant Kelly testified that at his direction, a pair of knit gloves, a flowered bed sheet, and a pillowcase were taken as evidence from Prekop's house and sent to the FBI Laboratory in Washington, D.C. for analysis. (Trial Tr. vol. 3, 189, 193, 196.) He found the gloves on Prekop's bedroom floor near the bed. (Trial Tr. vol. 3, 196, 197.)

On cross-examination, Sergeant Kelly stated that when he saw Perrot on December 7 at

⁷ On cross, defense counsel pointed out that Perrot had stated that he entered Lichwala's house through an unlocked rear breezeway door and kicked the rear inner door in. (Trial Tr. vol. 3, 181.) Detective Jarvis admitted that Perrot did not state anything about breaking a window to open the unlocked rear breezeway door or about going into the basement of Lichwala's house. (Trial Tr. vol. 3, 181.)

4:30 a.m., he was unkempt and disheveled and had an odor of alcohol about him. (Trial Tr. vol. 3, 218, 219.) At that time, he attempted to question Perrot about the break-ins on November, 30th; Perrot denied any involvement. (Trial Tr. vol. 3, 221.) Sergeant Kelly confirmed that at the lineup Prekop did not identify Perrot as being the person who broke into her home. (Trial Tr. vol. 3, 225-227.)

William Eubanks ("Eubanks"), Unit Chief of the Serology Unit at the FBI Laboratory in Washington, D.C., testified next regarding his analysis of blood stains. Generally, after he determines that a stain is human blood, he attempts to figure out which of the four major bloods types it is (i.e., O, A, B, or AB). (Trial Tr. vol. 4, 11-12.) Then he attempts to characterize the stain further, based on twelve to thirteen enzymes or proteins that are commonly present in a dried blood stain. (Trial Tr. vol. 4, 12.)⁸ After comparison of two blood stains based on these tests, he could say that an unknown blood stain "could have come from this individual or it could not have come from this individual." (Trial Tr. vol. 4, 12.)

In other words, the analysis is not like a fingerprint. We cannot say that a blood stain on an item came from an individual to the exclusion of everyone in the population. We can only either associate it with that individual as having possibly come from that individual. On the other hand, if it's not consistent, I can say that the blood stain could not have originated from that individual.

(Trial Tr. vol. 4, 12-13.)

Regarding the bed sheet, Eubanks testified that there were two stains on which he conducted tests. (Trial Tr. vol. 4, 17.) On the larger stain, he identified four different genetic markers. (Trial Tr. vol. 4, 18-19, 20). The first one was the enzyme PGM, of which there are ten

⁸ The amount of enzymes that are found in a given blood sample is determined by the age of the stain, the size of the stain, and the concentration of the stain; a stain could have zero factors or twelve factors. (Trial Tr. vol. 4, 14-15.)

possible types. (Trial Tr. vol. 4, 19-21). He identified the type PGM 1+. (Trial Tr. vol. 4, 20-21.) Forty-one percent of the Caucasian population has the PGM 1 + enzyme. (Trial Tr. vol. 4, 23.) The second enzyme he identified was EAP, of which there are six major types. (Trial Tr. vol. 4, 23.) He identified EAP BA. (Trial Tr. vol. 4, 23.) Forty-one percent of people would have this enzyme. (Trial Tr. vol. 4, 24.) The third and fourth markers were serum proteins, which are proteins found in the serum fraction of blood. (Trial Tr. vol. 4, 24.) The third marker was Hp or haptoglobin, of which there are four possible types. (Trial Tr. vol. 4, 24.) The type found was haptoglobin 2-1. (Trial Tr. vol. 4, 24.) Forty-eight percent of the Caucasian population has this type. (Trial Tr. vol. 4, 25.) The last marker was Tf or transferrin, of which there are three major types. (Trial Tr. vol. 4, 25.) The type found was transferrin type C. (Trial Tr. vol. 4, 25.) Roughly ninety-nine percent of the Caucasian population has this type. (Trial Tr. vol. 4, 25.)

Eubanks compared the results from the larger blood stain on the bed sheet with the results from the testing of Perrot's blood and found that Perrot is the same type in all four of the markers found on the bed sheet. (Trial Tr. vol. 4, 30.) He also analyzed Prekop's blood and found that while she has the same PGM type as Perrot, she has different EAP, Hp, and Tf. (Trial Tr. vol. 4, 31-32.) This means that the blood stain on the bed sheet "could not have come from Prekop and is consistent and could have come from Perrot." (Trial Tr. vol. 4, 32.)

Regarding the knit gloves, Eubanks testified that he identified one human blood stain on each of the gloves. (Trial Tr. vol. 4, 33.) Because they were small stains, he was only able to run one genetic marker test. (Trial Tr. vol. 4, 33-34.) He found that both blood stains had the PGM 1+ marker. (Trial Tr. vol. 4, 34.) Both Perrot and Prekop are PGM 1+s. (Trial Tr. vol. 4, 34.)

On cross, Eubanks reiterated that he was able to exclude Prekop as the source of the blood on bed sheet but he could not exclude Perrot as the source. (Trial Tr. vol. 4, 51.) He clarified that he was not saying that the blood found on the bed sheet was Perrot's blood; he could not say that the blood came from anyone to the exclusion of all the population. (Trial Tr. vol. 4, 51.)

Finally, Wayne Oakes ("Oakes"), Supervisory Special Agent at the FBI, testified regarding his analysis of hair evidence. He testified that he compares hairs based on characteristics such as the color, the medulla, the cuticle, the cortex, the scales, how the pigment granules are arranged, etc. (Trial Tr. vol. 4, 69-70.)⁹ If he sees just one difference in any of these characteristics or how they are arranged along the length of the hair, he will say positively, based on his opinion and experience, that the one hair did not originate from the same source as the other hair. (Trial Tr. vol. 4, 70, 74.) If he sees no differences microscopically between all of the characteristics and the arrangement of the characteristics, he will say that one hair is consistent with having originated from the same source as the other hair; it either originated from the same person or from another person of the same racial group whose hairs exhibit all of the same characteristics arranged in exactly the same way. (Trial Tr. vol. 4, 70.)

Oakes testified that he found a brown Caucasian head hair on the bed sheet that he thought was suitable for comparison purposes. (Trial Tr. vol. 4, 77.) In other words, it contained enough characteristics that he felt comfortable attempting to associate it with a known standard

⁹ On cross-examination, Oakes stated that the characteristics from the hairs he examined in this case were "the cuticle, cortex, the medulla, the scales, the pigmentation, the size, the shape, the distribution, the arrangement of the pigmentation, the lack of or prominence or presence or distribution of cortical fusi, ovoid bodies, medulla, whether it was continuous, discontinuous, fragmented, vacuolated, opaque, the general diameter of the hair, the length, the shape, cuticle color, thickness." (Trial Tr. vol. 4, 103-104.)

(i.e., Perrot's and Prekop's hair). (Trial Tr. vol. 4, 78, 79, 81.) Oakes stated that the questioned hair from the bed sheet exhibited all of the same characteristics arranged in the same way as the known hair from Perrot; there were no variations whatsoever. (Trial Tr. vol. 4, 80-81.) Further, the questioned hair from the bed sheet was dissimilar from Prekop's hair so the questioned hair did not originate from Prekop. (Trial Tr. vol. 4, 81.)

When asked if there were any variations between Perrot's head hair and the questioned hair from the bed sheet, Oakes reiterated that

there were no significant differences in any of the microscopic characteristics or the arrangement of those characteristics between the questioned hair from the sheet and the known hair standards from Perrot.

(Trial Tr. vol. 4, 85.) Oakes concluded that the questioned hair was consistent with having originated from Perrot. (Trial Tr. vol. 4, 85, 112.)

On cross, Oakes stated again that the hair "is either consistent or originated from Mr. Perrot or another individual of the same race whose hairs exhibit all of the same characteristics and arranged in the same way." (Trial Tr. vol. 4, 86.) When asked whether it could have been Perrot's hair or it could have been someone else's hair, Oakes answered:

I can't answer that question with a yes or no. I can't say that that hair could come from someone else, because I would have to have that person's hair and I would have to examine it microscopically, and that also would have to match Mr. Perrot's known standard and the questioned hair. I can't discount the possibility that there is someone else whose hairs exhibit all of these same microscopic characteristics, because I haven't examined everybody in the world's hairs and compared it with their hair standard so I can't discount that possibility, but I do not know that that person even exists.

(Trial Tr. vol. 4, 86-87.)

Also on cross, Oakes acknowledged that hair comparison does not constitute a basis for positive personal identification, that is, it is not like fingerprint analysis. (Trial Tr. vol. 4, 87.)

Oakes also admitted that it is possible for different people to have hairs that match microscopically and that every person probably has hairs on their head that might vary from another hair on their head. (Trial Tr. vol. 4, 87, 107.) Defense counsel asked Oakes what he meant when he said Perrot's hair was consistent with the hair found on the bed sheet. (Trial Tr. vol. 4, 87-88.) Oakes responded:

To me, hair associations are the basis of strong association, based on my experience. In the six years at the laboratory, I have worked thousands of cases involving thousands of known hair standards, so when I do in fact associate a questioned hair with a known hair standard, in my opinion, it forms a basis of a strong association, because very rarely do I see known samples from two people that are so alike that I cannot tell them apart, so it is more than just I can't exclude him; I feel reasonably strong about that association or I wouldn't be testifying to it.

(Trial Tr. vol. 4, 88.)

The Commonwealth rested after Oakes testimony and then the defense called Westcott to testify. On cross-examination the following exchanged occurred after Bloom asked Westcott about a police visit to her house on December 7, 1985:

Q. And he said to you, 'Ma'am, do you have a pair of gloves that look just like those,' didn't he?

A. Something to that effect, yes.

Q. And you turned and you went to a closet or an area of your house where you kept a pair of gloves that looked just like these, isn't that correct?

A. No, that's not correct.

Q. That's not correct?

A. No.

Q. You never told Sergeant Kelly of the Springfield Police Department that you had a pair of gloves that looked just like these?

A. No, I did not.

Q. You never went to a closet area in your house and said, 'I know they're up there, I just saw them a few weeks ago. Here's where I keep them and they're not here'?

A. No, I did not.

Q. You never said that?

A. No, I did not.

Q. Did you own a pair of gloves in 1985 that looked like these?

A. No, I did not

(Trial Tr. vol. 5, 61-62.) On redirect, Westcott stated that she told Sergeant Kelly that the gloves were not hers, but that they looked familiar because she thought they were George's girlfriend's gloves. (Trial Tr. vol. 5, 72.)

Perrot testified. He stated that he did not remember signing the statement admitting to the November 30 crimes. (Trial Tr. vol. 5, 92-93, 110-111, 119.) On cross, he admitted to telling the police everything in the statement leading up to the "I headed for 33 Covell Street" sentence. (Trial Tr. vol. 5, 114-115.) He denied providing the rest of the statement to the police. (Trial Tr. vol. 5, 115-117.)

The Commonwealth recalled Sergeant Kelly who testified that when he showed Westcott the gloves, she said she had a pair just like them but when she went to look for them they were not there. (Trial Tr. vol. 5, 137-138.)

In his closing, Bloom stated that Perrot's admission is "the most important piece of evidence in the case" because "he puts himself right in the home at about the exact time period that these incidents occurred." (Trial Tr. vol. 6, 54.) Additionally, he stated,

Do you find it unusual that a seventeen-year-old kid could admit to kicking the door in, but not being able to admit to raping a 78-year-old woman? What is so unusual about that? It's one thing to say you kicked the door in, it's another thing to say I raped a 78-year-old woman in her home at 3:00 in the morning.

(Trial Tr. vol. 6, 54.)

Bloom also stressed that Perrot's sister identified the gloves found by Sergeant Kelly in Prekop's bedroom. (Trial Tr. vol. 6, 62-63, 71.)

With respect to Oakes and Eubanks, Bloom stated the following:

Why is [the hair found on the bed] so important? It is so much more important than it could be under a different set of circumstances, because you have a woman that lives alone, so if it's not her hair in her bedroom, there is no other human that is sleeping in that bedroom beside her. She told you that. It's got to be the perpetrator's hair.

She also indicated to you that no one has been in that house, sleeping, for six or eight years, however long it's been since her mother died. What does that indicate to you? Off of the same bedsheet the blood has to be the perpetrator's blood. . . .

[Defense counsel asked] [n]ow, as you cut those two hairs and took Mr. Perrot's and the head hair found off the sheet, the appearance this gives is that it meshed with all characteristics into one head hair that couldn't be distinguished, every characteristic in reference to [the questioned hair] was identical and meshed right into every characteristic of the head hair that you mounted and put under a microscope and magnified to four hundred times its normal size?

Do you remember what his answer was? That is exactly what I'm telling you. Fifteen to 25 characteristics. Fifteen to 25 characteristics.

He told you about the cortex, the medulla, told you about the pigmentation and the grouping of the pigmentation, and a number of other variables that are determined and looked at by a person who is an expert in this field. And that his head hair was identical in every single characteristic to the characteristics from the head hair taken off that sheet.

And if that wasn't enough, William Eubanks testified. Ladies and gentlemen, take a look at what he said. Now, I'd be the first to agree with you and to agree with the defendant that that wouldn't have been a big piece of evidence if in our society, for instance, hypothetically, let's say type O blood there are 80 or 85 percent Caucasian population, and an expert comes in and says it's type O blood, George Perrot is type O. I mean, so what? If you did a random sampling, if you picked any hundred people, Caucasians, you'd expect to find around 85 or so that had that blood type. That really wouldn't be anything that would cause you fairly and objectively to be able to direct your attention toward the defendant. That wouldn't be fair. That's not the evidence in this case.

In reference to proteins and enzymes, genetic markers, there are ten. Based on the size of a given blood stain, you may not be able to raise any of them. If it's a sufficient enough size blood stain, you may under ideal circumstances be able to raise ten of them. In this case, based on the blood stain and it's size, the quantity of the blood, you have an expert that is able to raise four genetic markers. He told you what those are, just proteins or enzymes that we have that make up our blood. Four of them.

And the reason that this is so crucially important is that for PGM, which is the first one we talked about, there are ten alternatives. PGM +1 is just one of them. There's nine

others. What are the two important things in reference to that? That if Perrot was any of the other nine other than +1, you don't have to go any farther, that is the end of it, it isn't his blood, and that six out of ten, if you did it randomly, 59 percent of the male or the Caucasian population have other than PGM +1. If he is any of these 59 percent or any of the nine other alternatives other than +1, that is the end of it, it isn't his blood.

EAP. Six possibilities. BA is the one that is found by Mr. Eubanks. Again, about 60 percent of the population, 59 percent of the Caucasian population have other than that strain of EAP, the BA. If he has any of these other five other than the strain found, that is the end of it, it's not George Perrot's blood.

Hp 2-1. There are three other alternatives other than 2-1. Over half of the Caucasian population, approximately 52 percent, have other than 2-1. If he is any of those 5 percent [sic] or if he has any of the other three other than this specific strain, that is the end of it. The first three strains, over half of the population.

Fifty-nine percent in the first two and about 52 percent in the third have other than this particular strain, and if he doesn't have it exactly on those three, that is the end.

And in reference to the last one, certainly the most common, but there are three alternatives. If he has other than this strain, of which, incidentally, Mary Prekop did, she didn't have strain C, then it's not George Perrot's blood.

When this stain was raised, ladies and gentlemen, there were 23 possibilities that could be found by Eubanks. Twenty-three. Ten in reference to PGM, six in reference to EAP, four in reference to Hp, and three in reference to Tf. And out of those 23 alternatives, there are four that were found. If he has any of the other nineteen in reference to these four strains, it's not his blood. Pretty significant piece of evidence.

(Trial Tr. vol. 6, 64-70.)

On December 14, 1987, a jury convicted Perrot of aggravated rape, burglary and assault in a dwelling, unarmed robbery, indecent assault and battery, and burglary.

III. Appeal

At the first trial, the Commonwealth had sought to introduce a statement made by Perrot regarding the location of Lichwala's purse. Judge Murphy suppressed the statement, finding that it was obtained in violation of Perrot's right to counsel. Judge Murphy, however, allowed the

Commonwealth to introduce the purse as evidence under the inevitable discovery rule.

Perrot appealed and claimed that Judge Murphy erred in (1) denying his pretrial motion to suppress oral and written statements made by him to the Springfield police, and (2) admitting into evidence Lichwala's purse under the inevitable discovery rule. On June 4, 1990, the Supreme Judicial Court set aside the verdicts and remanded the case for a new trial.

Commonwealth v. Perrot, 407 Mass. 539 (1990). While the Court determined that the record demonstrated a sufficient factual and legal basis for the denial of the motion to suppress, the Court concluded that purse should not have been admitted into evidence because the police acquired it as a result of a statement by Perrot in violation of his right to counsel.

In holding that Perrot was prejudiced by the error, the court stated:

There were no identifications of the defendant by the victims. Both the fact, and the validity, of his statements to the police were strenuously denied by the defendant in his testimony at the trial. The defendant also denied throughout that he was involved in any sexual attacks on women.

Perrot, 407 Mass. at 549.

IV. Second Trial

In January of 1992, the Commonwealth retried Perrot for the November 30 crimes. Judge Simons presided, Brett Vottero ("Vottero") represented the Commonwealth, and John Ferrara ("Ferrara") represented Perrot.

In his opening statement, Vottero stated that Perrot "left something behind" at Prekop's house. (Trial Tr. vol. 1, 107.) "He left some of his hair and left some of his blood. And he left a pair of gloves, mittens that belonged to his sister." (Trial Tr. vol. 1, 107.) With respect to the hair, Vottero told the jury that an FBI analyst would testify that the hair found was consistent

with Perrot's hair. (Trial Tr. vol. 1, 107.) With respect to the bed sheet, Vottero stated that the jury would hear

testimony about what the characteristics are that are in common with George Perrot's blood and the blood on the bedsheets. You'll know that Mary Prekop could not have been the person who left the blood on the sheet. It was not her blood.

(Trial Tr. vol. 1, 107-108.) Vottero also discussed Perrot's "confession" on December 7, 1985.

He stated:

Now, I don't mean that he confesses fully to all of these crimes because George Perrot is unable to acknowledge what he did to Mary Prekop, but does acknowledge that on November 30, of 1985, he broke into 33 Covell Street and that he broke into 27 Malibu. And he indicates that he had been drinking and having drugs that night. And that he did break into those homes, but insists throughout that he didn't touch anybody.

(Trial Tr. vol. 1, 108.)

In his opening, Ferrara focused on Prekop's statement that her assailant was clean shaven but that Perrot had a moustache and a beard. (Trial Tr. vol. 1, 112-113.) He pointed out that Prekop failed to identify Perrot as her attacker in a lineup. (Trial Tr. vol. 1, 113.) He also pointed out that Perrot was under the influence of drugs and alcohol and was deprived of sleep when he allegedly admitted his crimes to the police. (Trial Tr. vol. 1, 115-117.) Further, the police kept questioning and harassing him even after he confessed to the December 7, 1985 incidents, the crimes for which he was arrested. (Trial Tr. vol. 1, 115-117.) With respect to the hair and blood analysis, Ferrara asked the jury to

Determine whether this is, how scientific this testimony is.

Is it quantum physics or is it astrology; how subjective are the conclusions that these individuals draw? Are their conclusions dependent upon their judgment? Would all persons necessarily agree with their conclusions? How detailed were their studies? How were their records?

(Trial Tr. vol. 1, 118.)

Lichwala was the first witness for the Commonwealth. She testified that around 3:30 a.m. she was awakened by the jolting of the door that leads from her kitchen to the basement. (Trial Tr. vol. 1, 120, 121.)¹⁰ She thought she heard someone walking down the stairs. (Trial Tr. vol. 1, 122.) After a few minutes of silence, she heard a crash, like shattering glass, from what she thought was the back breezeway door. (Trial Tr. vol. 1, 120, 122.) She then heard a second crash from the second door into her kitchen and heard someone pushing in on the chain. (Trial Tr. vol. 1, 123.) Lichawala fled from her house. (Trial Tr. vol. 1, 123.) When she returned the next day, she saw shattered glass in the kitchen and a pool cue from the basement in her kitchen. (Trial Tr. vol. 1, 125.)

Prekop testified next that she was awoken between 3:00 a.m. and 4:00 a.m. (Trial Tr. vol. 1, 129.) She heard her dog Scuffy barking by the kitchen door and went to check on it; finding nothing she went to the living room for “a few minutes” and, taking with her a stick from the kitchen, went back to bed. (Trial Tr. vol. 1, 129-134.) She then heard someone come into the house. (Trial Tr. vol. 1, 134, 151.) She jumped out of bed, grabbed the stick, and ran to the kitchen. (Trial Tr. vol. 1, 134.) She put on the kitchen light and saw a man standing with his hands over his face. (Trial Tr. vol. 1, 135.) She hit him on the head with the stick; he took the stick from her, pushed her into the bedroom, and assaulted her. (Trial Tr. vol. 1, 135-137.)

When asked about her assailant’s appearance both on direct and cross-examination, she stated that he was white, with black wavy hair. (Trial Tr. vol. 1, 141, 153.) He had a clean face;

¹⁰ Springfield Police Lieutenant Robert Cheetham testified that a dryer vent attached to a cellar window had been forced inward. (Trial Tr. vol. 1, 175)

he did not have a moustache or beard. (Trial Tr. vol. 1, 141, 154.) He was wearing a blue jacket and white sneakers. (Trial Tr. vol. 1, 141, 154.) Regarding his hair "it wasn't too long"; "it looked like . . . he went often to a barber shop"; "it wasn't hanging way down over his neck"; "I couldn't say freshly cut . . . it wasn't hanging. I didn't think it was down his neck too far." (Trial Tr. vol. 1, 156-157.)

When asked by Vottero about whether she saw anyone she recognized in the lineup, Prekop stated: "They brought four men. I think nobody had that kind of color hair. Everybody's hair look like they needed a haircut and was hanging down. It's like it never been combed. They looked like some kind of a tramp." (Trial Tr. vol. 1, 147.)

On cross, when Ferrara showed Prekop a photograph of the men from the lineup, pointed out Perrot, and asked if he was the man who assaulted her, Prekop said: "How can I say it was when this man has a mustache and a beard? This fellow didn't have any beard. He didn't have any mustache." (Trial Tr. vol. 1, 158.) With respect to the length of the assailant's hair, Prekop said that in the lineup "nobody had hair on that order. Everybody's hair was hanging their neck and looked like they needed a hair wash." (Trial Tr. vol. 1, 158-159.) She testified that none of the men in the lineup that day made her think of the man who assaulted her. (Trial Tr. vol. 1, 160.) The following exchanged then occurred:

Q. Ma'am, this gentlemen here, sitting here, is George Perrot, and as you can see today he is clean shaven; does this look like the man who assaulted you?

A. Well, this happened five years ago.

Q. I understand.

A. Different haircut.

Q. The hair looks different?

A. His haircut was different, right. Well, somebody told me he might have been wearing a wig, I don't know, the day he came into my house and it was black hair and wavy.

(Trial Tr. vol. 1, 160.) When shown a picture of Perrot from the lineup, Prekop stated again: "The man who assaulted me didn't have a mustache or a beard. He had it on then it had to be false, but he didn't have it. He was clean shaven; the man who came into my house. The coloring of the hair in this picture is a lot like his." (Trial Tr. vol. 1, 161.)

When asked about the blood on the bed sheet, Prekop asked how there could be any blood on the sheet when the attack did not occur on the bed. (Trial Tr. vol. 1, 163.) She testified that there was one blood stain near the top of the bed sheet that had been there for fourteen or fifteen years from her uncle who lived with her when he had lung trouble and coughed a lot. (Trial Tr. vol. 1, 163-164, 165.) She stated on cross that her attacker threw the stick on the bed, but that she did not see any blood on the stick. (Trial Tr. vol. 1, 169.)¹¹

Sergeant Kelly testified that he took a flowered bed sheet, a pillowcase, and knit gloves as evidence from Prekop's bedroom and sent them to the FBI Laboratory in Washington, D.C. for analysis. (Trial Tr. vol. 1, 194-196, 198.) He stated that he found one of the gloves on the bed and one at the foot of the bed.¹² (Trial Tr. vol. 1, 192.) He testified on cross that the entire bed area was in disarray. (Trial Tr. vol. 2, 216.)

Kelly acknowledged that Prekop failed to identify any of the individuals in the lineup as the person who sexually assaulted her. (Trial Tr. vol. 2, 223.) Kelly knew prior to conducting

¹¹ At 8:00 a.m. on November 30th, Prekop gave a statement to the police. (Trial Tr. vol. 1, 153.) The end of her statement read: "When the police arrived, I noticed a pair of gloves on the foot of the bed. They aren't mine, I never saw them before." When asked about her statement, Prekop said: "They got it here about some gloves. I don't know when they put that in. I didn't see the gloves until two or three hours until after I got home and I went to make up my bed and there was the gloves and the stick was still on the foot of the bed and the gloves too." (Trial Tr. vol. 1, 144.) She reiterated later that she found the gloves at the foot of the bed when she went back after the attack and was making the bed. (Trial Tr. vol. 1, 163.) Her statement was read to the jury at the end of her testimony. (Trial Tr. vol. 1, 172.)

¹² At Perrot's first trial, Kelly testified that he found the gloves on Prekop's bedroom floor near the bed.

the lineup that Prekop had identified her attacker as clean shaven and that no one in the lineup was clean shaven; six had moustaches and Perrot had a moustache and a goatee. (Trial Tr. vol. 2, 223-224.) On redirect, Kelly testified that the police pick people for the lineup who look like the suspect to be fair to the suspect. (Trial Tr. vol. 2, 226-227.) On re-cross, Ferrara asked the following question

Did it occur to you where the victim described her assailant as having short dark hair and being clean shaven that perhaps if you put an individual who matched that description into the line-up given the appearance of Mr. Perrot that she might have identified that individual as most clearly resembling her assailant?

(Trial Tr. vol. 2, 230.) Kelly responded: "No. That never occurred to me." (Trial Tr. vol. 2, 230.)

Kelly then stated that the lineup had also been prepared for the December 7, 1985 victims and that Prekop had told him beforehand that she did not believe she could identify anyone. (Trial Tr. vol. 2, 230-231.) Prekop was shown the lineup because Perrot had admitted breaking into her house. (Trial Tr. vol. 2, 230-231.)

Eubanks testified next regarding his analysis of the blood stains. For a blood stain, after he determines that the stain is human blood, he attempts to type the stain in various steps such as the ABO blood group. (Trial Tr. vol. 2, 275.) Beyond that, he tries to determine other various enzymes proteins which are in the blood. (Trial Tr. vol. 2, 275.) There is a possibility of twelve or thirteen other enzymes and proteins besides ABO. (Trial Tr. vol. 2, 275.)

With respect to the gloves, Eubanks found a human blood stain on each glove. (Trial Tr. vol. 2, 285-286.) He did not do ABO testing because the stains were too small. (Trial Tr. vol. 2, 286.) On the left glove, he used the PGM system and on the right glove, he used the PGM and

haptoglobin systems. (Trial Tr. vol. 2, 287.) Both stains were PGM 1+. (Trial Tr. vol. 2, 287.) Approximately forty-one percent of the Caucasian population is PGM 1+. (Trial Tr. vol. 2, 287.)

With respect to the bed sheet, Eubanks found two human blood stains. (Trial Tr. vol. 2, 291-292.) On one of the stains, the ABO testing was inconclusive, but he was able to identify two enzymes and two serum proteins. (Trial Tr. vol. 2, 292.) The first enzyme was PGM 1+ and approximately forty-one percent of the Caucasian population is PGM 1+. (Trial Tr. vol. 2, 292-293.) There are nine other PGM subgroups. (Trial Tr. vol. 2, 294.) The second enzyme he found was EAP BA. (Trial Tr. vol. 2, 293.) Forty-one percent of the population has this type. (Trial Tr. vol. 2, 293.) There are 4 other EAP subgroups. (Trial Tr. vol. 2, 294.) The third test Eubanks ran was for the presence of the protein haptoglobin or Hp. (Trial Tr. vol. 2, 293.) The type he identified in the blood stain was Hp 2-1. (Trial Tr. vol. 2, 293.) Forty-eight percent of the population has this type. (Trial Tr. vol. 2, 293.) There are three other Hp subgroups. (Trial Tr. vol. 2, 294.) The fourth marker Eubanks found was transferrin or Tf. (Trial Tr. vol. 2, 293.) The type identified in the blood stain was Tf C and ninety-nine percent of the population has this type. (Trial Tr. vol. 2, 293-294.) There are at least two other types. (Trial Tr. vol. 2, 294.)¹³

For Perrot's blood sample, Eubanks took a portion of the blood, deposited it on a piece of cotton sheeting, allowed it to completely dry, and then ran tests. (Trial Tr. vol. 2, 297.) He obtained the following results, PGM 1+, EAP BA, Hp 2-1, and Tf C. (Trial Tr. vol. 2, 297.)¹⁴ For Prekop's blood he obtained the following results: O blood, PGM 1+, EAP, Hp 2, and Tf CB.

¹³ Tests on the second stain were inconclusive. (Trial Tr. vol. 2, 295.) Eubanks stated that it would be totally impossible to obtain any testing results after repeated washing of a sheet. (Trial Tr. vol. 2, 295.)

¹⁴ He also found another protein called Gc 1. (Trial Tr. vol. 2, 297.)

(Trial Tr. vol. 2, 297.)

When asked to compare the results, Eubanks stated: "First item was . . . the sheet. And the results which I've previously testified to were PGM 1+, EAP, BA, Hp 2-1, and Tf, for transferrin, C. . . . The only result I got [for the gloves] was the PGM enzyme system on both of these was a 1+." (Trial Tr. vol. 2, 298.) Based on his examination, he testified that "the human blood stain that I typed on the sheet its results are inconsistent with the known blood sample of Prekop" so Prekop did not leave the stain on the sheet. (Trial Tr. vol. 2, 299.) With respect to the gloves, Eubanks could not say that it was not Prekop's blood; that is, he could not exclude her as the source of the blood. (Trial Tr. vol. 2, 299.)

With respect to Perrot, Eubanks testified

if you compare those systems in which I obtained results on the sheet that is in the PGM system, the EAP system, the Hp and the Tf, transferrin, and compare the sheet results with the known blood sample with Perrot you will see that those results are the same. That is the PGM 1+, the EAP BA, the Hp 2-1, and the Tf C.

(Trial Tr. vol. 2, 299-300.) When asked whether it meant that it was Perrot's blood on the bed sheet, Eubanks answered, "No it does not. It means I cannot eliminate George Perrot as the donor of the blood stain. It's consistent with them. I cannot exclude him from being the depositor of that stain." (Trial Tr. vol. 2, 300.) Eubanks acknowledged that blood analysis is not like fingerprinting; it cannot positively identify a person as leaving blood. (Trial Tr. vol. 2, 300.)

Eubanks reiterated the percentages of the population that would have each of the four blood groupings he found and then testified that eight percent of the population would have all four of these markers in their blood. (Trial Tr. vol. 2, 300-301.) Thus, Eubanks would expect to find the combination that is found on the bed sheet of PGM 1+, EAP BA, Hp 2-1 and Tf C in

approximately eight percent of the population. (Trial Tr. vol. 2, 301.) Perrot is included in that eight percent. (Trial Tr. vol. 2, 301-302.)

On cross, Eubanks acknowledged that the percentages could be off plus or minus five percent depending on the region of the country. (Trial Tr. vol. 2, 313, 317-320.)

Next, Oakes testified regarding his analysis of the hair evidence. He stated that by looking at hair from a crime scene and comparing it with a known hair, he can include or exclude individuals as the source of the hair from the crime scene. (Trial Tr. vol. 2, 335.) Specifically,

I'm looking at all of the microscopic characteristics that go to make that hair somewhat unique. It would be just like if you asked me to look at an individual's face. What would I look at? I would look at his eyes, his ears, his nose, the mouth, the hair, the cheek structure, the bone structure, etc.

There are a number of microscopic characteristics in a person's hairs that I can see under a microscope when I mount the hair in a mounting medium that allows me to look outside. If you look around the courtroom yourself and just look at a person's head hairs you can see tremendous differences on the color, the length and the texture. What I can see, beyond the obvious, is the internal microscopic characteristics that can vary greatly from one person to another.

(Trial Tr. vol. 2, 339-340.) Shortly thereafter, Oakes again analogized hair comparison to

looking at a person's face:

I like to use the analogy of a person's face. I testified previously when you look at a person's face you look at their eyes, their ears and mouth. Most people have those characteristics, but when you walk into a room that's crowded you can spot and recognize someone you know even though everyone has two eyes, two ears and a nose and mouth because you know that person. You can detect subtle differences. You can pick out -- oh, yeah, that's that person that I'm pointing out. An experienced hair examiner can pick out subtle differences in these characteristics because these characteristics require -- . . .

(Trial Tr. vol. 2, 341-342.) Ferrara objected at this point and Oakes did not go back to this

analogy after the sidebar conference.¹⁵

Vottero later asked Oakes: “Now, when you’re making that comparison of the question hair to a known hair what do you have to see to say they’re consistent with each other?” (Trial Tr. vol. 2, 348.) Oakes responded:

Let’s take the reverse of that. If I see any differences, in other words, if one hair, the question hair has a thick cuticle, but my known hairs don’t have a thick cuticle I will conclude that the question hair did not come from that person represented by the known hair sample.

If the scales are different, if the pigmentation is different, if the absence of cortical fusi or ovoid bodies is different or if the medullation is different I will eliminate that hair as probably having originated from that, the known hair sample.

If the question hair is microscopically indistinguishable, I can’t see differences, I will conclude the question hair is consistent with coming from the individual represented by the known hair sample.

(Trial Tr. vol. 2, 348-349.) The following exchange then happened:

Q. Can you say like in the case of fingerprints, the question hair came from that person?

A. No. The only instance with which I could say with one hundred percent certainty a question hair, let’s say found on this stand, came from my head would be if I pulled that hair and – pulled it from my head and placed it there. That’s the only time I could say that with one hundred percent certainty. However, I will testify if the hair matches, in my opinion, that hair is consistent with coming from me or stated another way it either came from me or another individual of my same race whose hair exhibits all of the same microscopic characteristics or in the same way from the root of the hair and the tips. And it’s my experience in 10 years it’s extremely rare I will have known hair samples from two different people I can’t tell apart.

Q. I take it [it] has happened.

A. It has happened, an extremely rare number of occasions. Generally, I am able to tell a person’s hair apart when, in my opinion, which I quote, match a hair or make a hair

¹⁵ The objection was not sustained. Ferrara argued at side bar that the analogy was “in essence, saying that [Oakes] can identify an individual by hair comparison.” The analogy was allowed in as background information to illustrate the process that the expert uses. (Trial Tr. vol. 2, 342-343.)

association although it's not positive like a fingerprint. It is basis of strong association. (Trial Tr. vol. 2, 349-350.)

With respect to the bed sheet, Oakes found one hair suitable for comparison. (Trial Tr. vol. 2, 352.) Oakes conducted a side by side microscopic examination of Perrot's hair with the hair from the bed sheet. (Trial Tr. vol. 2, 353.) Oakes found that the hair found on the bed sheet "exhibits all the same microscopic hair arranged in the same way as the characteristics present in the known hair from Mr. Perrot. I conclude that question hair was consistent with coming from Mr. Perrot." (Trial Tr. vol. 2, 353.) Additionally, he compared the hair from the bed sheet with hair from Prekop and determined that they were dissimilar; in his opinion the hair on the bed sheet did not come from Prekop. (Trial Tr. vol. 2, 353-354.)

On cross, Oakes could not remember the length or diameter of the unknown hair nor did he have any notes that would indicate the length of the hair. (Trial Tr. vol. 2, 358, 360, 363-364.) He also could not remember the length or diameter of any of the hairs from Perrot's head nor how many hairs he received from Perrot's head. (Trial Tr. vol. 2, 360, 362.)¹⁶ Oakes stated that his "testimony was the question hair exhibited the same microscopic hairs as hair present in the known hair standard and was consistent with coming from Mr. Perrot." (Trial Tr. vol. 2, 361.) Oakes agreed that hairs from the same individual from different areas of the head can be different. (Trial Tr. vol. 2, 361.) All of the hairs he received from Perrot did not look alike. (Trial Tr. vol. 2, 361-362.) Oakes agreed that he could not identify someone from their hair and

¹⁶ On re-cross, however, Oakes testified that he remembered that "the question hair was a brown Caucasian cut hair with a cut tip and natural root. It had normal pigmentation. It was not medullated. It had a thick cuticle. It had prominent ovoid bodies. The scales were not particularly damaged. They were unremarkable." (Trial Tr. vol. 2, 384-385.)

that hair comparisons do not constitute a basis for absolute personal identification. (Trial Tr. vol. 2, 368, 370-371.) Specifically, “[y]ou cannot positively identify someone. In other words I can’t say with one hundred percent certainty that question hair positively came from Mr. Perrot to the exclusion of any other person in the world possibly exists that someone else may have the same characteristics.” (Trial Tr. vol. 2, 371.) Ferrara asked Oakes:

Q. What you’re saying is that this hair that was your questioned sample was sufficiently similar to one or some of the hairs you received from Mr. Perrot so that you could not excuse Mr. Perrot as having been the source of that hair, correct?

A. That’s your characterization of my results, that’s not how I state my results.

Q. Is that an accurate statement, though, of the significance of the hair comparison?

A. No.

(Trial Tr. vol. 2, 371.)

Ferrara’s next line of questioning related to secondary transfer, which is “if defense counsel and [Oakes] came into contact . . . and [defense counsel’s] hairs became deposited on my jacket and [Oakes] was later to come into contact with the assistant district attorney and [defense counsel’s] hairs were then to transfer from [Oakes’] jacket to the district attorney’s clothes.”

(Trial Tr. vol. 2, 372.) Ferrara tried to elicit from Oakes that Perrot’s hair might have ended up on the bed sheet because of his contact with people at the police station. (Trial Tr. vol. 2, 371-372.) Oakes would not testify as such, however. (Trial Tr. vol. 2, 371-372.)

Oakes confirmed that analysis of hair requires some subjective judgment. (Trial Tr. vol. 2, 374.) Ferrara then asked Oakes about studies “where a number of experts have examined large samples of hairs and there is inconsistency with respect to matches of those hairs.” (Trial Tr. vol. 2, 375.) Ferrara specifically asked about the Barnett and Ogle study regarding probabilities in

human hair comparison from 1982 and a response to that study by Gaudette. (Trial Tr. vol. 2, 375.) Oakes responded that he was familiar with the studies and acknowledged that “there has been a series of disagreements as to the significance that can be placed on particular hair comparison.” (Trial Tr. vol. 2, 375.) Ferrara asked: “Would you agree that even amongst experts who examine hairs there is likely to be some difference of opinion as to whether there is a match between two given hairs.” (Trial Tr. vol. 2, 375.) Oakes responded:

I don't know if I agree with your categorization, likely to be disagreement. I don't think if you showed that question hair to any qualified experts they would disagree that it matched the hairs of the defendant. That's my honest opinion.

Now, if you take any two experts, you take two attorneys, you take two doctors, you're asking me does the possibility exist they might have different opinions. Of course, that's what makes the world go round, but if you have qualified experienced competent hair examiners that do this day in and day out and for years on end they are not going to differ, in my opinion, on the conclusion that I reached.

(Trial Tr. vol. 2, 375-376.)

Ferrara later asked whether Oakes was aware of a study published in 1990 in the Journal of Forensic Sciences involving 100 scalp hairs each taken from 97 Caucasian individuals. (Trial Tr. vol. 2, 379-380.) Oakes asked the basis of the article because he did not remember it. (Trial Tr. vol. 2, 380.) As Ferrara began to explain the substance of the article, Vottero objected and the court sustained the objection. (Trial Tr. vol. 2, 380.) Oakes then said “You have the article? I'd be happy to review it.” (Trial Tr. vol. 2, 380.) Ferrara did not respond and moved on to another line of questioning. (Trial Tr. vol. 2, 380.)

The Commonwealth then recalled Sergeant Kelly who testified to the events of December 7, 1985. Sergeant Kelly first saw Perrot at 4:50 a.m. and gave him Miranda warnings. (Trial Tr. vol. 2, 393-394.) When asked to describe Perrot's appearance, he stated that “he had fairly long

hair. It was uncombed. He had sneakers on. They were untied. Outer garments -- he wasn't very clean." (Trial Tr. vol. 2, 396.) There was an odor of alcohol on his breath, but Sergeant Kelly thought he was sober. (Trial Tr. vol. 2, 401.) Sergeant Kelly had no trouble communicating with Perrot. (Trial Tr. vol. 2, 401.) Kelly met with Perrot for about twenty minutes. (Trial Tr. vol. 2, 403.) Prior to Sergeant Kelly leaving the room, he asked Perrot about the events of November 30 and Perrot said "I don't know anything about any old ladies." (Trial Tr. vol. 2, 404.)

Sergeant Kelly next went to Westcott's house. (Trial Tr. vol. 2, 405.) He took a pair of knit gloves with him. (Trial Tr. vol. 2, 406.) He showed them to Westcott and asked if they were hers. (Trial Tr. vol. 2, 406.) Westcott said she had a pair just like them. (Trial Tr. vol. 2, 406.) Kelly asked her where they were. (Trial Tr. vol. 2, 406.) Westcott stated she had just cleaned out a hallway closet and saw them in there about two weeks ago. (Trial Tr. vol. 2, 406.) When Westcott went to the closet to retrieve the gloves, they were not there. (Trial Tr. vol. 2, 407.)

On cross, Sergeant Kelly reiterated that he found one glove on the bed and one glove on the floor. (Trial Tr. vol. 3, 447.) Ferrara brought up that Sergeant Kelly had testified at a different proceeding that he had found both gloves on the floor near the bed. (Trial Tr. vol. 3, 448.)

The Commonwealth called Detective Jarvis as its final witness. Detective Jarvis testified that he met with Perrot in the interrogation room between 7:30 a.m. and 7:45 a.m. on December 7 and gave him his Miranda rights. (Trial Tr. vol. 3, 468, 469.) When he asked Perrot about the December 7 events, Perrot said something to the effect of "they got me for the arrest . . . There's

no sense of you speaking to me.” (Trial Tr. vol. 3, 468.) Detective Jarvis could not answer whether he detected alcohol on Perrot, but stated that Perrot did not have any difficulty understanding questions and none of his answers were inconsistent or unresponsive. (Trial Tr. vol. 3, 470.) Jarvis testified that Perrot had a moustache, a beard, and “kind of wild hair like real, real curly hair.” (Trial Tr. vol. 3, 470.) After meeting with him for five to eight minutes, Detective Jarvis took Perrot to booking. (Trial Tr. vol. 3, 470, 471.)

Detective Jarvis next saw Perrot at 12:30 p.m. when he brought Perrot to the interrogation room. (Trial Tr. vol. 3, 472.) Detective Jarvis gave Perrot Miranda warnings. (Trial Tr. vol. 3, 472.) They talked about the December 7 events for forty-five minutes to an hour. (Trial Tr. vol. 3, 474.) Detective Jarvis knew about the drugs and alcohol Perrot had said he had consumed the night before, but did not notice any effects of either drugs or alcohol on Perrot. (Trial Tr. vol. 3, 477.) Perrot signed a search warrant waiver to take his hair and blood. (Trial Tr. vol. 3, 478.) After taking Perrot’s statement with respect to the December 7 events, Detective Jarvis gave him lunch, let him make phone calls, and go to the bathroom. (Trial Tr. vol. 3, 481-482.)

Around 3:10 p.m., Detective Jarvis sat down with Perrot to ask him questions about the November 30 incidents. (Trial Tr. vol. 3, 483.) Detective Jarvis did not re-Mirandize Perrot. (Trial Tr. vol. 3, 483.) In forty-five minutes to an hour, Detective Jarvis had gotten a statement from Perrot regarding the November 30 events although Perrot never admitted that he had physically or sexually assaulted Prekop. (Trial Tr. vol. 3, 484-485.) Perrot got very upset during the questioning and at one point asked Detective Jarvis if could take his gun so he could blow his brains out. (Trial Tr. vol. 3, 486.) He kept yelling that the drugs made him do it. (Trial Tr. vol. 3, 519.) He also stated that he never touched the woman, he just wanted the money. (Trial Tr.

vol. 3, 519.)

Perrot's written statement regarding the November 30 events was admitted as an exhibit and Detective Jarvis read the statement into evidence. (Trial Tr. vol. 3, 488-490.) Detective Jarvis acknowledged that Perrot never mentioned a dryer vent to him with respect to the 33 Covell Street break-in. (Trial Tr. vol. 3, 490.) Detective Jarvis also pointed out, however, that in the statement with respect to December 7, he did not say anything about striking McNabb even though he had hit McNabb three or four times with a broom handle. (Trial Tr. vol. 3, 477, 491.)

On cross, Detective Jarvis admitted that he took the knit gloves to Perrot's girlfriend's house and asked if they were her gloves. (Trial Tr. vol. 3, 497-498.) Perrot's girlfriend said they were not her gloves. (Trial Tr. vol. 3, 498.)

The court then admitted, at the request of Ferrara, Perrot's statement regarding the December 7 events into evidence and Detective Jarvis read the following:

I returned home from work at about five p.m., worked Friday December 6, 1985. I work on construction. I called my girlfriend Lisa Eldridge when I got home from work. I asked her if she was ready to go. I then called Bob Timmerman and asked him to pick me up so we can go out with the girls.

Bob came over at about six p.m. Friday night. We went over to pick up Lisa who lives at 116 Corey Road. From there we went over to East Longmeadow to pick up her friend, Debbie. I'm not sure of her last name. We picked up a case of Bud at the Springfield Package Store at Allen and Cooley. Then we went driving around the city drinking beer and smoking marijuana. We then made two trips up to Dickinson street where we bought one half gram of coke on two occasions. Then we went over Bob's house and did a couple of lines of coke. Then we went over to my house and did a couple of lines of coke. Then we went over to the package store and bought another six pack of Bud. It was getting late so we dropped Lisa off at her house and then dropped Debbie off in East Longmeadow.

(Trial Tr. vol. 3, 506, 508-509.)

Detective Jarvis testified that he was aware that Perrot had consumed beers on December

6, and taken cocaine, and smoked marijuana. (Trial Tr. vol. 3, 509.) He was not sure if Perrot slept after his arrest. (Trial Tr. vol. 3, 509.) He stated that Perrot told him that he wanted to remain in the interrogation room because the police were banging on the bars of the cell and on the floor downstairs. (Trial Tr. vol. 3, 509.)

Jarvis then finished reading Perrot's statement:

It was about 12:15 a.m. Saturday morning Bob dropped me off at my house.

I walked up to Denny's Restaurant at Allen and Cooley Street. I went inside and had a coffee. After finishing my coffee I walked outside and noticed two girls walking from the parking lot toward Denny's. One of the girls had her pocketbook dangling. I ran over and grabbed the pocketbook and ran across Cooley Street toward my house on Malibu Drive. I went into my house and went into my bedroom. I checked the pocketbook for money and I only saw a little more than a dollar in change. I left the pocketbook in my room. I then left the house and started walking up Malibu. I walked over to Ellendale Street. I walked up to a house. I don't know the number and saw a broken broom handle in the carport. I kicked the front door in and started to walk around what I thought was a dining room. I had the broom handle in front of me so I would [sic] bump into anything. I started to hear a lot of voices. I got scared and ran out the front door. The reason I broke into the house was to get money for drugs. I ran back home and the police were there.

(Trial Tr. vol. 3, 510-511.)

Ferrara called only one witness, Westcott, who testified that when the police arrived at 3:00 a.m. on December 7, Perrot was in bed with his feet on the floor and his legs partially on the bed and hanging over. (Trial Tr. vol. 3, 537.) He was not wearing a shirt. (Trial Tr. vol. 3, 538.) They had a hard time waking him up and when they did he was not quite sure what was going on. (Trial Tr. vol. 3, 538.) He thought that his sister was his girlfriend, Lisa. (Trial Tr. vol. 3, 538.) He smelled like he had been drinking. (Trial Tr. vol. 3, 538.)

At 9:00 a.m. on December 7, the police came to her house and one of them asked her if a pair of gloves looked familiar. (Trial Tr. vol. 3, 545.) Westcott told the police officer that the

gloves looked familiar but when he asked if she owned a pair, she said they were not hers. (Trial Tr. vol. 3, 546.) She said she thought the gloves belonged to George's girlfriend. (Trial Tr. vol. 3, 546.) She later saw Lisa with those gloves though. (Trial Tr. vol. 3, 547-548.)

In his closing argument, Ferrara stressed that Prekop has always given the same description of her attacker, that is, that he was clean shaven. (Trial Tr. vol. 4, 585.) Further, Prekop never said that she could not identify her attacker. (Trial Tr. vol. 4, 585.) But she could not identify Perrot as her attacker when shown a picture of Perrot as he looked on December 7, 1985, because Perrot had a beard and a mustache and the man who raped her was clean shaven. (Trial Tr. vol. 4, 586-587.) She also did not identify Perrot in the lineup. (Trial Tr. vol. 4, 611-612.)

With respect to the blood, Ferrara questioned how the stain got on the bed sheet if the rape did not happen on the bed, reiterating Prekop's testimony that the blood stain was from her uncle. (Trial Tr. vol. 4, 598.) He also questioned how results could be obtained on such a small stain. (Trial Tr. vol. 4, 599.) He pointed out the margin of error in the blood analysis and how Eubanks should have used a more localized study because percentages vary according to the ethnicity of the population. (Trial Tr. vol. 4, 601-602.) He also noted the subjective nature of the test and how if even one of the factors was off it would not have been Perrot's blood. (Trial Tr. vol. 4, 604.)

With respect to Oakes' testimony, Ferrara stated that Oakes did not bring his notes and could not tell him basic fundamentals about the hairs he compared. (Trial Tr. vol. 4, 604-605, 607.) He also noted how Oakes admitted that hair is not a means of identifying someone, but then Oakes opined that the question hair and at least one hair from Perrot were microscopically

so similar that he could not exclude Perrot as having contributed the question hair. (Trial Tr. vol. 4, 606.)

Finally, Ferrara questioned whether Perrot's statements to the police were voluntarily. (Trial Tr. vol. 4, 607.) He noted that Perrot was a

17 year old boy [who] had worked construction on December, gone home. He is drug involved. He is drinking beers; he's doing cocaine, and I believe . . . he is smoking marijuana. They arrest him at three or 3:30 just shortly after they know he was out and I acknowledge he was committing criminal offenses, but the point is they know he hasn't had any sleep. He is taken back to the police station. He is kept awake. He is questioned over a long period of time.

(Trial Tr. vol. 4, 608-609.)

In his closing argument, Vottero first talked about Prekop's failure to identify Perrot. He said:

Look at the picture of George Perrot and put yourself in an 80 year old woman with vision difficulties with an intruder in her house and he's going like this. You wouldn't see any facial hair on that person. And she is so honest that she will not say anything from this stand this she doesn't remember, that she doesn't recall. And she doesn't recall seeing it.

(Trial Tr. vol. 4, 617.)

With respect to the blood evidence, Vottero stated that the blood is consistent with Perrot:

It's among eight percent of the population who would have that particular blood. Is it the blood of Mary Prekop's relative coughing up blood years ago? [Eubanks] was asked, I would like you to assume that in 1981, some blood was deposited on that sheet and the sheet was washed upwards of 20 times. Would you get results? 'No.' Uncontradicted. No. He would not get results.

But wait a minute, where did the blood come from? There is blood on the gloves too and the blood on the gloves, while they couldn't type it very far it is the same PGM subtype as the blood on the bed. The gloves weren't hers. They weren't. You know, and I would like you to recall this, this is a very small amount of blood. You probably get more blood cutting yourself shaving. How did George Perrot cut himself? How was he injured? By the stick, by breaking the lamp, don't know, but we know he bled on the gloves, the

gloves are removed and, there is blood on the sheet. Whether it came from him or from the gloves what difference does it making how it got on the sheet. It's there and it's not an uncle who has been dead for sometime.

(Trial Tr. vol. 4, 618-619.)

With respect to the hair evidence, Vottero stated:

Wayne Oakes told you he found a single hair suitable for comparison and it was consistent with George Perrot. Not telling you it is George Perrot, he is not trying to pass this off as conclusive. And he told you it was in his experience, over 10 years doing thousands of these tests, it was very rare, very rare to ever find two hairs from different people that he couldn't tell apart. I don't know what we would all see if we look through a microscope. We don't have the training that he has. 'Would an expert disagree?' What was his answer to that? 'If somebody had the amount of training and experience not one of them would disagree with my opinion in this case.'

(Trial Tr. vol. 4, 619-620.)

He then stated that Perrot's confession was voluntary and noted how Perrot did not admit that he had hit McNabb in his confession to the December 7 crimes. (Trial Tr. vol. 4, 620, 623.) Vottero hypothesized that Perrot is simply trying to minimize what he did and the information in the statements is not coming from anywhere other than Perrot. (Trial Tr. vol. 4, 624, 625.)

At the end of his closing, Vottero reiterated the blood and hair analysis. He said if it is not Perrot then it is "somebody else with that eight percent. Imagine that eight percent blood, somebody else with hair that matches him." (Trial Tr. vol. 4, 628.)

On January 9, 1992, a jury convicted Perrot of aggravated rape, burglary and assault in a dwelling, unarmed robbery, indecent assault and battery, and burglary.

V. Appeal

Shortly after Perrot's original convictions, Bloom, in an attempt to assist the police in solving the Mae Marchand housebreak, authored and forged Perrot's name to a bogus

postconviction confession implicating two friends of Perrot, who the police suspected had been Perrot's accomplices in the Mae Marchand housebreak. Armed with the forged confession, Bloom interrogated the two friends,¹⁷ but neither confessed, and Bloom abandoned the scheme, leaving the forged confession in Perrot's file. During preparation for retrial of Perrot's case, the forged confession was discovered and Perrot filed a motion to dismiss based on prosecutorial misconduct which Judge Simons denied.

Perrot appealed claiming that the judge erred in not dismissing the indictments due to prosecutorial misconduct. The Appeals Court upheld the decision, determining that the Commonwealth had sustained its burden of showing that no harm resulted to the defendant. Commonwealth v. Perrot, 38 Mass. App. Ct. 478 (1995), rev. denied 420 Mass. 1104 (1995).

VI. Motions for New Trial

In 2001, Perrot filed a motion for new trial, asserting numerous trial errors, including that the prosecutor's closing argument was improper and prejudicial. On September 10, 2001, the court (Wernick, J.) allowed Perrot's motion. Judge Wernick concluded the following

Although the Commonwealth's case was strong, based on evidence of a confession circumstantially identifying the defendant as the victim's attacker, corroborated by blood and hair samples consistent with the defendant's samples and by the presence of gloves consistent with those owned by the defendant's girlfriend or his sister, the case was certainly not overwhelming or irrefutable. The victim's exculpatory testimony weighed heavily in the defendant's favor. The victim testified that her assailant was clean shaven, while unrefuted evidence at trial indicated that the defendant had a mustache and beard at the time of the assault. She could not identify the defendant at a line-up. When shown a photograph of the defendant at trial, she could not say that he was her assailant since the man in the photograph had a beard and mustache while her assailant was clean shaven, and she would not identify the defendant in person as her assailant at trial.

¹⁷ One of the friends testified that Bloom accused him of taking part in the Prekop break-in also. Mem. of Decision and Order on the Def.'s Mot. for New Trial, 6-7.

There were significant issues regarding the glove allegedly found on the bed and the blood from the bed which the prosecution claimed was the defendant's blood. This glove had a blood stain on it, from which only a single genetic marker could be determined. Apart from this glove, there was no explanation for how defendant's blood purportedly got on the bed. The assault occurred on the bedroom floor. There is no evidence the attacker ever touched the bed. No blood was found on the stick Prekop used to strike her attacker. (The stick was found on the bed.) The inference, therefore, is that the blood on the bed came from the glove. Yet Prekop denied seeing any gloves in the bedroom before she returned from the hospital. She denied referring to any such gloves in her written statement and suggested that any reference to them in her statement must have been added by the police. While Kelly testified that Defendant's sister said that the gloves were similar to ones she owned which she could not locate, Defendant's sister denied ever saying that. Kelly's testimony that he found one glove on the bed and one on the floor differed from earlier testimony in which he said both gloves were on the floor. Furthermore, there was admittedly a blood stain on the sheet from Prekop's uncle (allegedly too old to test positive for genetic markers). That only four of thirteen genetic markers could be positively identified from the supposedly fresh stain on the bed, tested by the FBI, raises a question of how fresh it really was and whether the "fresh" stain was actually the old stain.

There were also substantial issues regarding whether the Defendant actually gave a written confession to the break-in (he never confessed to any assault on Prekop), and, if so, whether it was voluntary. There was evidence that the Defendant had ingested drugs and alcohol shortly before his arrest, . . . that he was either not permitted to sleep or unable to sleep during the many, many, hours of questioning, . . . and that he was interrogated intermittently during a period of at least 12 hours commencing as early as 5:05 a.m. His sister, furthermore, testified that she saw bruises on his face and chest at the police station.

Mem. of Decision and Order on the Def.'s Mot. for New Trial, 35-37.

On May 12, 2003, the Appeals Court reversed the order allowing the Motion for New Trial in an unpublished decision. Commonwealth v. Perrot, 58 Mass. App. Ct. 1102 (2003), rev. denied 441 Mass. 1104 (2004). The Appeals Court agreed with Judge Wernick's conclusion that the Commonwealth's case was strong because of Perrot's confession "corroborated by" the blood and hair analysis and the gloves. The Appeals Court determined that combined with the strong case, the trial judge's instructions were curative and no error materially influenced the guilty

verdicts.

On November 25, 2006, Perrot, acting pro se, filed another Motion for New Trial. The court (Sweeney, J.) declined to act on the motion because the Appeals Court and Supreme Judicial Court had already considered and rejected the arguments raised by Perrot. Perrot appealed. On May 31, 2007, the Appeals Court dismissed the appeal for lack of prosecution.

On June 6, 2008, Perrot, acting pro se, filed a third Motion for New Trial. The court denied the motion as Perrot had failed to prosecute an appeal on his second motion for new trial. Perrot appealed. On March 13, 2009, the Appeals Court dismissed the appeal for lack of prosecution.

VII. Current Motion for New Trial

In 2012, the Federal Bureau of Investigation (“FBI”) initiated an audit of the cases in which its hair microscopy examiners had testified. The FBI determined that some examiners had “exceeded the limits of science by overstating the conclusions that may appropriately be drawn from a positive association between evidentiary hair and a known hair sample.” Exhibit 33. In connection with that audit, the FBI reviewed Oakes’ testimony in Perrot’s 1992 trial and determined that Oakes made erroneous statements when testifying regarding microscopic hair comparison.

On July 8, 2014, Perrot filed the current Motion for a New Trial. Perrot argues that he is entitled to a new trial for three reasons: (1) the FBI’s acknowledgment that its examiners provided scientifically unsupported testimony is newly discovered evidence; (2) the Commonwealth violated Perrot’s due process rights by presenting false and misleading testimony regarding the hair evidence; and (3) defense counsel provided ineffective assistance of counsel

because he failed to investigate the Commonwealth's hair evidence.

FINDINGS OF FACT

Over the course of two sittings, the court heard from seven witnesses and admitted forty-six exhibits.¹⁸ Review of the testimonial and documentary evidence causes this jurist to make the following conclusions and subsidiary findings.¹⁹

I. Conclusions

The history of hair analysis during the periods preceding, during, and following the defendant's trials reveals changes in the premises that informed the practices of forensic examiners' analysis of human hair. The substantial shift in orientation, however, only occurred in the last decade. Prior to that breakthrough, flawed understandings of the significance of hair analysis dominated the forensic community of hair examiners. Today, there exists a consensus on the nature of hair analysis and its limitations. It is now understood that hair analysis, like fiber analysis, falls within the definition of class evidence.

It is now accepted that a forensic hair examiner may not offer an opinion that it would be rare to find another human having the same hair characteristics as the defendant's hair or the victim's hair's characteristics. This substantive limitation on a forensic examiner's authority to articulate what amounts to a statement of the comparison's statistical significance failed to achieve general acceptance in the 1980's or 1990's.

¹⁸ In a "Notice of Additional Exhibits," dated November 16, 2015, the court ordered to be admitted as exhibits the affidavit of Dr. Kafadar and six articles consisting of three by Gaudette; one by Gaudette and Keeping, one by Barnett and Ogle, and one by Wickenheiser and Hepworth.

¹⁹ Pursuant to a procedural order, the parties submitted four sets of proposed findings of fact. Certain proposed findings relied on information that failed to derive from exhibits admitted by the court or testimony taken at the September 11 and 25 hearings. See Defendant's Proposed Findings 170, 172, 178, 219-221.

Today's view of the nature and limitations of hair analysis stands in sharp conflict with what was believed and applied in the period during which the defendant's trials occurred. Back then, when a hair examiner found a known hair to be consistent with a questioned hair, articles in forensic journals supported the hair examiner's authority to testify to statistical estimates on the chance that another human's hair would also be consistent with the unknown hair sample. The articles largely, but not exclusively, supported a hair examiner's authority to testify that the match of another human hair to the questioned hair would be a rare or unlikely event. In that climate, it was acceptable for an examiner to rebut challenges to her opinions by suggesting that her years of experience contradicted the merit of any challenge.

Scientific breakthroughs in defining and limiting hair analysis and testimony only occurred in the last decade. DNA analysis contradicting hair evidence resulting in reversals of convictions constituted one of the catalysts for this significant turn-about. In 2006, the National Academy of Science ("NAS") convened a committee that published a report in 2009 rejecting a forensic hair analyst's competency to opine on a comparison's statistical significance ("2009 Report"). The 2009 Report clearly defined hair evidence as class evidence, not individual evidence such as DNA evidence.

On November 9, 2012, the FBI, the Innocence Project, and the National Association of Criminal Defense Lawyers ("NACDL") entered into a Memorandum of Understanding ("2012 MOU") on the nature and limitations of microscopic hair examinations. The 2012 MOU stated that the scientific analysis of hair evidence would permit a well-trained examiner "to offer an opinion that a known individual can either be included or excluded as a source of a questioned

hair collected at a crime scene [but] the size of the pool of people who could be included as a possible source of specific hair is unknown.” The 2012 MOU also pointed out that an examiner’s report or testimony offering “probabilities to a particular inclusion of someone as a source of hair of unknown origin cannot be scientifically supported.” It was agreed that statements of “rareness implicitly suggesting probability could not be squared with the limits of science.”

On April 17, 2013, the FBI published a Guidance Document (the “Guidance Document”) that would be used by a team of selected individuals who would review hair testimony in a number of cases nationwide. The Guidance Document would be used in determining whether trial testimony or a laboratory report contained a statement falling into one of three error categories that the 2012 MOU had previously identified and defined. Furthermore, it gave guidance on the presence of limiting language such as “hair comparison is not a means of positive identification.” Such limiting language would also be identified in the team’s audit of testimony given in any particular case.

The team reviewed the defendant’s case and ultimately identified seven errors in the testimony provided by Wayne Oakes, an FBI forensic hair examiner, at Perrot’s 1992 trial. The team also identified seven limiting statements. Today, if any of that inculpatory evidence had been offered, it would have been excluded.

II. Subsidiary Findings

A. Hair Analysis Generally

Hair morphology (characteristics) is the study of hair’s micro- and macroscopic features. Macroscopic examination covers the hair’s color, shaft form (e.g., straight, wavy, curved,

kinked) and overall thickness (e.g., fine, medium, coarse). Microscopic examination covers the medulla, cortex, ovoid bodies, and other features.

The procedure for comparison of hair consists of two stages. The first stage involves macroscopic and microscopic examinations of the hair received for analysis. During the first stage, the examiner determines whether the hair is human, what part of the body it came from, and whether it is suitable for comparison purposes. The second stage involves a microscopic examination of the hair received for analysis (“unknown hair sample”) and a known hair sample.

The known hair sample usually consists of twenty-five to fifty hairs taken from five parts of the person’s head. The examiner puts the hairs from the known and unknown samples on a slide that has a mounting medium. The mounting medium would be “a liquid that would then solidify [and have] a refractive index about the same as the hair, so light passing through would not be bent too much and [you] could see the internal features of the hair.”

The examiner looks at the known and unknown hairs by means of a comparison microscope, which is two research microscopes connected by an optical bridge. The examiner would see, for example, on the left hand of the microscope a known sample, and on the right hand, the unknown sample. At this point, the examiner is directly “comparing all of [the] characteristics all the way from the root all the way to the tip.” The examiner looks to determine whether the unknown sample exhibits “a similar range of characteristics” to the known sample.

The examiner looks at about fifteen characteristics, both major and minor. Major characteristics include: (1) color treatment (e.g., dyed, bleached, curled, permed); (2) pigment aggregation (e.g., streaked, clumped, patchy); (3) pigment distribution; (4) medulla appearance if present; and (5) other characteristics. Minor characteristics include: (1) cuticular margin (e.g.,

smooth, serrated, looped, or cracked); (2) pigment size; (3) pigment density; and (4) other features. Without making a specific record of the characteristics and how they coincided with one another, the examiner visually compares the samples and determines whether the unknown sample has similar characteristics to the known sample.

The examiner uses bench notes to record observations about the different types of characteristics he observed.²⁰ The bench notes are more detailed than the subsequently assembled report. The practice of recording characteristics on bench notes differs from examiner to examiner, and on some occasions, an examiner would note anywhere from sixteen to twenty-five characteristics. Neither the report nor the bench notes record all observable characteristics and how they compare to one another. Nowhere in the bench notes or in the report would the examiner enumerate the characteristics specifically found in the unknown and known samples, and then document the correlating characteristics between the unknown and known samples.

In looking at and recording the characteristics of a known or unknown hair, the examiner would not measure specifically, for example, an ovoid body or pigment density. Nor was it standard procedure for the examiner to measure shaft thickness. Examiners also failed to use a uniform method of reporting. The report or bench notes often present specific characteristics described "slightly differently."

The identification of an association between a known and an unknown sample would not necessarily derive from objective criteria. Examiners exercised subjective judgment in selecting which hairs and how many hairs to examine, as well as in selecting which fields of view to

²⁰ The court has reviewed on multiple occasions the document that is purported to be Oakes' bench notes. Despite strenuous efforts, the court can only speculate what the bench notes fully indicate.

employ for their examination. There was no accepted number of characteristics that had to be similar between the two samples. The identification was based on a subjective weighing of the characteristics that the examiner observed.

B. Forensic Articles

1. Gaudette

From 1973-1982, Gaudette published four articles on hair analysis and comparison in the *Journal of Forensic Science*. The articles' primary focus was to identify and justify a "ballpark estimate" for the probability that an unknown human hair found to be similar to a known human hair "could have originated from another source." As a result of research experiments on the comparison of human scalp hair, Gaudette concluded that the probability of "one hair having originated from someone else would be about 1 in 4500 for scalp hair and 1 in 800 for pubic hair."

In 1973, Gaudette's first article, co-authored by Keeping, a statistician, looked at the chance that an unknown hair sample (taken from the scalp), found to be similar to a known sample, could have come "from someone else." The authors explained that the research experiment involved taking 80 to 100 scalp hairs from one hundred different individuals. From the 80 to 100 hairs, six to eleven "mutually dissimilar hairs were selected macroscopically to represent the range of length, coarseness, and color present in the 80-100 hairs." Viewed longitudinally, some characteristics of each hair were coded on punch cards. The cards were single-punched if only one type of a particular characteristic was identified and double-punched if more than one type per characteristic was observed. Cards were then grouped together, and those determined to be similar were retrieved. Similar cards featured all similar major

characteristics and no more than four minor dissimilarities. A further screening through microscopic comparison eliminated more dissimilar hairs.

The culling resulted in 861 hairs from one hundred individuals. Examination of the 861 hairs resulted in the finding that "nine pairs of hairs were found to be indistinguishable." The finding formed the basis for the calculation that there existed about a 1 in 4500 probability of a hair coming from another source.

In 1976, Gaudette published another article in the Forensic Science Journal entitled "Probabilities and Human Pubic Hair Comparisons." This article reported on a research experiment that followed the method applied in the 1973 experiment on scalp hair. The examiners concluded that the chance that a pubic hair from a crime-scene found to be similar to a hair from a suspect "could have originated from another source is small[,] about 1 in 800."

In 1978, Gaudette published another article discussing "the individualization of human hair" This article derived from the results of two experiments. The first experiment involved three hair examiner trainees. Each was given a good representative sample of eighty scalp hairs from an individual (known hairs). The trainees were then given ninety-nine hairs from ninety-nine different individuals and one hair from the individual who had provided the eighty hairs (unknown hairs). Without being told how many individuals the unknown hairs came from or how many hairs were supposed to be similar, the trainees compared the unknown hairs to the known hairs. Two trainees correctly concluded that only one hair from the unknown hairs was similar to the known hairs, while the third trainee concluded that three were similar.

In the second experiment, one hundred representative hairs from one hundred individuals were obtained (samples). One sample was selected at random (known hairs) and one hair at

random was selected from that sample (unknown hair). The unknown hair was compared to the one-hundred samples. The comparison resulted in the correct conclusion that the unknown hair was similar to the known hairs in only one standard. The experiment was repeated with unknown hair categorized as a featureless type. This comparison produced the conclusion that the unknown hair was similar to the correct sample and one other.

Based on the preceding experiments, Gaudette concluded that when an experienced examiner conducts a hair comparison using all the macroscopic and microscopic characteristics and finds one unknown hair to be similar to a known hair, the probability that the unknown hair originated from someone else is about 1 in 4500 for scalp hair and 1 in 800 for pubic hair. He also observed that "the results have been well accepted in courts and have been used as general estimates for the probabilities involved."

2. Barnett and Ogle Response

In 1982, Barnett and Ogle published an article entitled "Probabilities and Human Hair Comparison." The Barnett and Ogle study criticized the research methodology followed by Gaudette and Keeping. According to the authors, "the probability estimates [found in Gaudette's studies] are grossly in error because of experimental bias and improper statistical treatment of the data." Barnett and Ogle characterized Gaudette and Keeping's findings as potentially misleading.

Barnett and Ogle pointed out that the Gaudette and Keeping study "dealt solely with the ability to distinguish two hairs and failed to include any consideration of factors that allow hairs from the same individual to be individualized." Noting that "there are always observable differences between any two hairs (even from the same individual)" the authors observed that

Gaudette's experiment "should have resulted in a high rate of success in distinguishing between any two hairs." The authors did not find it surprising that the "probability estimates were low."

Though the article was largely a critique of the Gaudette and Keeping study, Barnett and Ogle also briefly commented on a proper methodology for determining the probability that a hair from a crime scene found to be similar to a hair from a suspect could have originated from another individual. They suggested that a proper study required knowledge about the frequency of the occurrence of attributes "capable of measurement and not shared by the entire population." If such attributes could be identified, described and measured, and the frequency of the occurrence of those attributes could be determined in a population, "then in principle probability estimates [could be made]." The authors observed that "[t]hese probability estimates [could be] used to determine the degree of certainty that the evidence originated from the same source as the standard."

Barnett and Ogle's reference to the frequency of discreet characteristics that could be measured and tested against the incidence of such attributes in the population constituted the solitary example of this type of view during that time frame. Their proposal for a reliable methodology to calculate a statistical estimate of the chance of another hair being similar to a hair found at a crime scene generally coincides with the views expressed by Karen Kadafar, an esteemed statistician who testified at the September 25, 2015 hearing.

In their article, Barnett and Ogle objected to Gaudette's probability estimates. Based on the examiners' bias and the experiments' failure to address the posed question about an estimate of the number of other individuals who could also have hair consistent with the hair in question, Barnett and Ogle concluded that Gaudette's estimates "were irrelevant to hair individualization."

The authors observed that Gaudette's erroneous estimates were being "used indiscriminately in many jurisdictions." The authors concluded that "[a]t the present time, the status of hair individualization can be stated as follows: When a match occurs between an evidence hair and standard hairs from an individual, the evidence hair could have come from that individual."

3. Gaudette Reply

In a 1982 article, Gaudette responded to Barnett and Ogle's views and proposal. In that article, Gaudette defended his research protocols and spoke about a population estimate, but identified the population as the hairs that were the subject of the experiment. He wrote "[i]n my research, the population considered was not a population of people, but rather a population of hair comparisons." Because of this conflict in the definition of "population," Gaudette never addressed the statistical model proposed by Barnett and Ogle.

4. 1985 Symposium

In 1985, the FBI hosted a symposium on forensic hair comparison. The chairman and committee members came from the United States, Canada, and England. One subcommittee addressed report writing, conclusions, and court testimony.

A section of the subcommittee's report addressed "the use of probabilities," and noted "the published research of Gaudette, co-authored by a statistician and verified by other statisticians, has shown when a positive hair comparison has been made by a qualified examiner the chance of coincidental matches are relatively rare." The report also stated that "the hair could match that of another individual, but it is much more likely to have originated from the same source to which it was compared." The subcommittee's report recommended that "all hair examiners should be aware of the several published papers of Gaudette on this topic." However,

it went on to recommend that hair examiners not mention the Gaudette studies unless asked directly about his published research.

5. Wickenheiser and Hepworth Article

In 1990, an article published by Wickenheiser and Hepworth addressed Gaudette's work. The article opened by stating that "[h]air evidence has been shown to be statistically good evidence as was first demonstrated by Gaudette and Keeping and then further shown by Gaudette and by Strauss." Wickenheiser and Hepworth went on to address the criticism posed by Barnett and Ogle together with Gaudette's response, concluding that Gaudette "adequately dealt with three of the four criticisms. The only criticism not fully addressed by Gaudette was that of examiner bias."

The authors also observed that "[d]espite the criticism of Barnett and Ogle, the rebuttal by Gaudette, and the lack of agreement as to the value of hair evidence, there has been little additional study in this area." The article went on to review "a repeat of the Gaudette and Keeping study." In Wickenheiser and Hepworth's view, that study "raise[d] some important questions." Despite these questions, the authors concluded that "this study demonstrates that the probability of incorrect association in routine forensic hair comparison is remote."

C. Perrot's Trial

1. Bloom

Wayne Oakes testified at Perrot's 1992 trial. In April of 1987, Bloom had carried evidence to the FBI Laboratory in Washington, D.C. He elected to take the substantial trip because he wanted to meet and speak with the assigned forensic scientists.

Bloom carried with him to Washington his attitudes and feelings towards Perrot. He

despised Perrot. In a diary, Bloom recorded his views about Perrot. He referred to Perrot as “inherently evil” and as “a sociopath,” and scoffed at Perrot’s redemption.²¹

Such feelings enable a person possessing public authority to shed the restraints and scruples that limit the exercise of power. The feelings allow the official to see the individual as apart from the community of citizens whose rights must be regarded. These feelings that filled Bloom’s mind, coupled with his trip to Washington, D.C., produce a reasonable foundation for the inference that Bloom voiced his views about Perrot to Oakes before Oakes’ 1992 testimony. Unconsciously, Oakes, because of these communications, departed from his role as a neutral expert and slipped into the role of a partisan for the government.

2. Retention and Consultation of Elizabeth Ziolkowski

On September 18, 1991, John Ferrara entered an appearance for Perrot. On October 29, 1991, he filed a motion for \$800 to retain an expert witness on hair analysis. He used these funds to engage Elizabeth Ziolkowski (“Ziolkowski”), who provided five hours of service.

In 1978, Ziolkowski graduated *cum laude* from Princeton University and, in 1987, earned a masters in science from Northeastern University. From 1987 through 1993, Ziolkowski worked at K-Chem Laboratories. While there, she examined trace evidence, including fire debris, blood, hair, and fibers.

By her demeanor and the substance of her testimony, Ziolkowski impressed the court as a careful and knowledgeable forensic scientist. She possessed a good, though not perfect, understanding of the state of hair examination and evidence in the period prior to Perrot’s second

²¹ The court recognizes that Bloom recorded these descriptions of Perrot after the hearing on the suppression of statements that was subsequent to Bloom’s trip to Washington. The court though infers from the credible evidence in its entirety that Bloom possessed these attitudes before he undertook the Washington trip.

trial. By her refusal to go to Springfield to view the hair samples without appropriate equipment, she exhibited integrity.

Turning to pretrial and trial proceedings, on January 3, 1992, Ferrara filed a motion to have the single hair taken from the bed and the hair taken from Perrot's scalp delivered to K-Chem Laboratories to allow Ziolkowski to examine the hairs. The motion stated that delivery to K-Chem Laboratories was necessary because Ziolkowski was unable to use a portable microscope to examine the hairs at the courthouse. The court allowed the examination but designated either the courthouse or the police station as the location for the examination.

Ferrara failed to call Ziolkowski as a witness. His decision to forego calling her arose from the court's failure to order the hairs to be delivered to K-Chem Laboratories and from his belief that his cross-examination of Oakes had developed points that he could use effectively in his closing argument. His closing incorporated testimony that came from Oakes' examination. In making that judgment, Ferrara could not speculate about what would have been learned from Ziolkowski's examination of the hairs. He had to rely on what he knew about the evidence that had been admitted in the trial.

Ziolkowski assisted Ferrara by reviewing Oakes' testimony from the first trial and advising Ferrara about areas of examination that could bring out the chance of an accidental transfer of Perrot's hair to the bed sheet and the chance of examiner error in concluding that Perrot's hair was consistent with the one hair found on the bed sheet.

Ziolkowski failed to suggest to Ferrara that he ask about Barnett and Ogle's view of an adequate statistical investigation into how many other individuals could also have hair consistent

with the unknown single hair found on the bed.²² This omission in Ziolkowski's consultations derived from the lack of standing accorded to Barnett and Ogle's criticism of Gaudette's probability estimates and their proposal for an alternative methodology. Neither their criticism nor their proposed methodology had secured a following in the community of forensic examiners of hair samples and had thus failed to displace Gaudette's probability views. Ziolkowski would have known that raising the subject of probability studies, including Barnett and Ogle's view of an appropriate study, could have prompted Oakes to bring out Gaudette's studies and opinions about the probability of finding another person's scalp hair that would be consistent with the one hair found at a crime scene.

3. Oakes' Testimony

Gaudette's views on the significance of hair evidence dominated the examination of hair analysis in Perrot's 1992 trial. The assertions testified to by Oakes, and the cross-examination of Oakes, were influenced by Gaudette's views.

In multiple ways, Oakes provided a statistical significance to his finding that the hair on the victim's bed and the hair on Perrot's head were "microscopically indistinguishable." In discussing the "microscopic characteristics" of hair, Oakes stated that these characteristics "make that hair somewhat unique." He likened the "subtle" characteristics of hair that "make it somewhat unique" to the subtle differences in a human face.

Oakes asserted that the hairs "matched" and showed a "strong association." In discussing the chance that the hair found on the victim's bed came from someone other than Perrot, Oakes

²² This finding like a number of other findings constitutes an inference that the court has drawn from credible evidence. In so drawing an inference, the court has observed the evidentiary standards on making an inference.

conceded the possibility, adding that during his ten years of experience “it’s extremely rare that I will have known hair samples from two different people that I can’t tell apart.” Oakes made these statements of confidence, despite being unable to recall at trial the length or diameter of the one hair found on the bed.²³ He also could not say how many hairs he collected from Perrot’s head.

Cross-examination focused on an accidental transfer of Perrot’s hair and examiner error. Though Ferrara cited Barnett and Ogle’s article, he used it to highlight examiner error. Ferrara mentioned, but failed to draw out, the conflict within the forensic community about the significance that can be placed on “hair comparison.” Ferrara suggested that there could be disagreement on “whether there is a match between two given hairs.” Oakes dismissed the possibility that an equally qualified examiner would disagree that hair from the bed “matched the hairs of the defendant.”

Ferrara’s cross-examination of Oakes failed to explore to what degree of chance other (unknown) human hairs could exhibit the same hair characteristics identified in either the hair found on the bed or the hair taken from Perrot’s head. Cross-examination also did not mention Barnett and Ogle’s discussion of a methodology that could estimate to what degree in a human population (i.e., Caucasian), a set of discreet, measured characteristics would appear. The defense had good cause for this abstention.

Barnett and Ogle’s short commentary about replication of measurable characteristics in a human population as a proposed methodology lacked support within the forensic community and

²³ The report generated by the 1985 symposium recommended that “[t]he examiner . . . be thoroughly familiar with the examinations and findings of the case”

lacked support within the courts in 1992. This lack of standing given to Barnett and Ogle's proposal for looking differently at probabilities can be explained by a number of factors. First, the proposal was briefly discussed in the context of an article that generally and largely took issue with Gaudette's research methodology. Second, it was published in 1982. Third, since 1982, no other article cited or discussed Barnett and Ogle's population proposal. Fourth, the 1985 symposium and the 1990 article by Wickenheiser and Hepworth generally supported Gaudette's probability estimates.

D. Revisions in Hair Analysis Testimony

In the 1990's, the FBI eliminated the practice of hair examiners testifying that a hair found at a crime scene matched the hair found on a defendant. Oakes used "matched" in his testimony. It was not until the audit in 2012, however, that the FBI publicly acknowledged that the reliability of hair microscopy analysis is limited in that the size of the pool of people who could be included as a possible source of a specific hair is unknown. Prior to the issuance of letters to Perrot in October of 2014, the FBI had never acknowledged that Oakes made any errors during his testimony at Perrot's trial.

E. NAS Report

In 2006, the NAS established a committee and charged it with identifying the needs of forensic science. In 2009, this Committee issued the 2009 Report, entitled "Strengthening Forensic Sciences in the United States, a Path Forward." The 2009 Report's section on hair analysis contained several significant findings.

The Committee found Gaudette and Keeping's "estimate[] that the chance of asserting a difference between two hairs from the same person is small about 1 in 4,500" was unreliable.

According to the Committee, “no scientifically accepted statistics exist about the frequency with which particular characteristics of hair are distributed in the population.” Further, “[i]n the absence of nuclear DNA, the [C]ommittee found no scientific support for the use of hair comparisons for individualization.”

Karen Kadafar was a member of this Committee, and a National Associate of the NAS, a designation awarded “to recognize extraordinary contributions to [the NAS].” Presently, she serves as a member of the Forensic Science Standards Board.

Based on the NAS finding that “no scientifically accepted statistics exist about the frequency with which particular characteristics of hair are distributed in the population,” she pointed out that “one cannot know whether one in five people could be the source or whether one in five million could be the source.” The answer to that question would be found in data identifying the frequency with which the characteristics on which the association was based appeared in the population of, in Perrot’s case, Caucasian males. Upon designation of the relevant population, there would need to be empirical studies assessing the relationship among the characteristics used in the process of making associations. For example, characteristics independent of one another would be identified, and the frequency of such characteristics in the reference pool would be identified. Without these findings, reference to probabilities in any form are unjustified. Without such data, one cannot know whether there would be a one-in-five-million-people or a one-in-five-people probability.

Exclusion of numerical expression of a probability also applies to verbal expression of a probability. Numerical expression explicitly states a degree of probability; verbal expressions such as “rare” equally express a degree of probability, specifically “a small probability.” The

limitation also prevents a hair forensic scientist from testifying about the analogy of the comparison of hair to the comparison of a human face.

F. The 2012 MOU

In November of 2012, the FBI, the Innocence Project, and the NACDL executed the 2012 MOU. In it, they expressed the following agreements: (1) a well-trained hair examiner can “offer an opinion that a known individual can either be included or excluded as a possible source of a questioned hair collected at a crime scene”; (2) “[m]icroscopic, hair evidence is limited, however, in that the pool of people who could be included as a possible source of a specific hair is unknown”; and (3) testimony that offers “numbers or frequencies as explicit statements of probability . . . cannot be scientifically supported” nor can “opinions regarding frequency, likelihood, or rareness implicitly suggesting probability.”

The 2012 MOU then identified three types of error: Type 1 would include a statement that “evidentiary hair could be associated with a specific individual to the exclusion of all others”; Type 2 would cover assigning to the positive association “a statistical weight or probability or a likelihood or a rareness that could lead the jury to believe that valid statistical weight can be assigned to a microscopic hair association”; and Type 3 would cover an examiner citing the number of cases or analyses worked in the lab and the number of samples from different individuals “that could not be distinguished from one another as a predictive value to bolster the conclusion that a hair belongs to a specific individual.”

G. FBI Audit

The FBI audited cases that may have contained reports or testimony that could not be justified by the science. The audit occurred in accordance with the Guidance Document that

illustrated the three types of error and limiting statements that would affect the materiality of the error(s). At the start of the audit, a team of three scientists “in higher positions” reviewed lab reports and trial transcripts to identify errors and limiting statements. At the end of their review, their findings were sent to representatives of the Innocence Project and the NACDL for review. Where requested, the team would review any response to their findings, but it would ultimately be up to the FBI to determine what changes would be made.

Due to a “surge” of reviews, four separate teams consisting of a scientist and two attorneys reviewed transcripts and made findings that were transmitted to defense representatives. A three-person team reviewed Perrot’s trial transcripts.

Based on that audit, the FBI initially identified six errors at Perrot’s trial divided into: one Type 1 error; three Type 2 errors; one Type 3 error; and one error that constituted both a Type 2 and Type 3 error. It also identified seven limiting statements. The errors included: (1) Type 1- testimony analogizing the comparison of hair to the comparison of a human face (Trial Tr. vol. 2, 341-342);²⁴ (2) Type 2- testimony that if a question hair is “microscopically indistinguishable,” meaning the examiner “can’t see differences,” Oakes will conclude that the question hair is “consistent with” the hair coming from the individual with the known hair (Trial Tr. vol. 2, 348-349); (3) Type 3- testimony that it has been Oakes’ “experience in 10 years [that] it’s extremely

²⁴ Specifically, Oakes testified:

I like to use the analogy of a person’s face. I testified previously when you look at a person’s face you look at their eyes, their ears and mouth. Most people have those characteristics, but when you walk into a room that’s crowded you can spot and recognize someone you know even though everyone has two eyes, two ears and a nose and mouth because you know that person. You can detect subtle differences. You can pick out -- oh, yeah, that’s that person that I’m pointing out. An experienced hair examiner can pick out subtle differences in these characteristics because these characteristics require -- . . .

rare I will have known hair samples from two different people I can't tell apart" (Trial Tr. vol. 2, 349); (4) Types 2, 3- testimony repeating that only in "an extremely rare number of occasions" has Oakes found that a third person's hair also exhibits the same microscopic characteristics as a defendant's hair and that when Oakes makes a hair association, it is not positive like a fingerprint, but it is the "basis of strong association" (Trial Tr. vol. 2, 349-350); (5) Type 2- testimony concluding that the question hair was "consistent with" coming from Perrot (Trial Tr. vol. 2, 353); and (6) Type 2- testimony stating that "question hair exhibited the same microscopic hairs as hair present in the known hair standard and was consistent with coming from Mr. Perrot" (Trial Tr. vol. 2, 361).

As to the testimony about the extremely rare event of finding a third person's hair that had "the same microscopic characteristics" as a defendant's hair, the audit noted two limiting statements that were made in the vicinity of the testimonial errors. One limiting statement was the concession that the examiner could not "say like in the case of fingerprints[] the question hair came from that person." (Trial Tr. vol. 3, 349.) The other limiting statement was "although it's not positive like a fingerprint." (Trial Tr. vol. 3, 349-350.)

Upon review of the audit, defense representatives identified two other errors and requested a meeting with the audit team. The meeting resulted in the FBI finding one additional Type 2 error, specifically where Oakes resisted defense counsel's suggestion that matching of hairs amounted to determination that Perrot could not be eliminated as the source of the hair found on the bed sheet. (Trial Tr. vol. 2, 371.)

RULINGS OF LAW

"Rule 30 (b) of the Massachusetts Rules of Criminal Procedure . . . allows a trial judge to

‘grant a new trial at any time if it appears that justice may not have been done.’” Commonwealth v. Cowels, 470 Mass. 607, 616 (2015). A new trial motion may be based on the ground of newly discovered or newly available evidence. Commonwealth v. Sullivan, 469 Mass. 340, 350 (2014). “Newly discovered evidence is evidence that was unknown to the defendant or counsel and not reasonably discoverable by them at the time of trial.” Id. at 350, n.6, citing Commonwealth v. Grace, 397 Mass. 303, 306 (1986). “Newly available evidence is evidence that was unavailable at the time of trial for a reason such as . . . because a particular forensic testing methodology had not yet been developed or gained acceptance by the courts.” Sullivan, 469 Mass. at 350, n.6.

I. Newly Discovered/Newly Available

Perrot and his counsel cannot be reasonably charged with knowing that Oakes lacked any scientific basis for determining the range of individuals who could have possessed hair that was consistent with the hair found on Prekop’s bed sheet or on Perrot’s scalp. Ziolkowski failed to advise counsel to question Oakes about the absence of any reliable methodology for identifying a statistical chance that the hair found on Prekop’s bed sheet matched Perrot’s hair. She failed to suggest this line of questioning because of her knowledge of the forensic community’s general acceptance of Gaudette’s conclusion that a fair estimate of another person’s scalp hair matching up with the hair found on Prekop’s bed sheet amounted to about 1 in 4500.

In the 1990 article published by Wickenheiser and Hepworth, the authors observed that “[h]air evidence has been shown to be statistically good evidence as was first demonstrated by Gaudette and Keeping and then further shown by Gaudette and by Strauss.” In that article, Wickenheiser and Hepworth only directly criticized Gaudette’s study’s conclusions because of examiner bias.

The 1985 symposium hosted by the FBI regarding the examination of hair evidence had resulted in a subcommittee report on “the use of probabilities.” The subcommittee report noted the published research of Gaudette verified by other statisticians “showing that when a positive hair comparison has been made by a qualified examiner, the chance of coincidental matches are relatively rare.” According to the subcommittee’s report, “all hair examiners should be aware of the several published papers of Gaudette on this topic.”

The only article suggesting that Gaudette had followed a fundamentally flawed methodology in studying the incidence of another individual’s hair being consistent with the hair found at a crime scene was the Barnett and Ogle article published in 1982. That article foreshadowed opinions developed by statisticians, including Karen Kafadar, on how to statistically analyze the chance that a hair found at a crime scene could be consistent with hairs found on another individual or individuals.

Barnett and Ogle maintained that a proper study required knowledge about the frequency of the occurrence of attributes “capable of measurement and not shared by the entire population.” According to Barnett and Ogle, if such attributes could be identified, described and measured and the frequency of the occurrence of those attributes could be determined in a population “then, in principle, probability estimates [could] be made”

In their article, Barnett and Ogle acknowledged that many jurisdictions were admitting evidence based on Gaudette’s probability estimates. Nothing in the record indicates that Barnett and Ogle’s suggested methodology was the subject of further journal articles by members of the forensic community. Nothing that was reported from the 1985 symposium nor found in the article by Wickenheiser and Hepworth suggested that the statistical methodology endorsed by

Barnett and Ogle had received further attention or support prior to Perrot's 1992 trial.

Given the landscape of forensic articles on hair analysis that preceded Perrot's 1992 trial, it would have been unwise to suggest to defense counsel that he use the Barnett and Ogle article to discredit Oakes' ability to determine the number of other individuals whose hair could be consistent with the hair found on Prekop's bed sheet. Ziolkowski would have known that if this had been brought out in cross-examining Oakes, he could parry that thrust with the response that only one in 4,500 individuals would be expected to have scalp hair consistent with the hair found on Prekop's bed sheet. She would have known that Oakes could have diminished Barnett and Ogle's article as an outlier. She would have known that he could have marshaled the Wickenheiser and Hepworth's article, the 1985 symposium, and courts' acceptance of Gaudette's probability studies. Perrot's expert, therefore, understandably abstained from suggesting that Barnett and Ogle's article be used to cast doubt on a hair examiner's opinion that it would be rare to find another hair that matched the hair found on the victim's bed.

The accredited view that a hair examiner lacked a scientific basis to statistically assess the chance of another person's hair being consistent with hair found at a crime scene had not been accepted by the forensic community in January of 1992, nor had that viewpoint been endorsed by the courts in January of 1992. Nothing in the record indicates that Barnett and Ogle had indeed gone beyond their abstract discussion of a proper methodology to actually formulate a method attesting to the incidence of measurable attributes of hair within the Caucasian population. Even if they had constructed such a methodology, the forensic community had not developed a consensus that the methodology proposed by Barnett and Ogle surpassed the methodology followed by Gaudette. In the period directly preceding Perrot's trial, it was Gaudette's

probability analysis that had general acceptance within the community of forensic examiners. See Commonwealth v. Lanigan, 419 Mass. 15, 24 (1994), citing Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

It was not until 2009 that the NAS issued its report rejecting a forensic hair analyst's ability to opine on the statistical significance of a hair from a defendant looking like a hair found at a crime scene. It was at that time that the NAS defined hair evidence as class evidence as opposed to individual evidence such as DNA evidence.

It was not until 2012 that the FBI recognized the nature and limitations of microscopic hair analysis evidence. At that point, the FBI agreed that statements of "rareness implicitly suggesting probability could not be squared with the limits of science."

The new consensus on the limitations and nature of hair analysis evidence constitutes newly available evidence. See Cowels, 470 Mass. at 618 (new methods of DNA testing would have excluded inculpatory evidence so as to constitute "newly discovered" evidence). This scientific evidence establishes that the evidence testified to by Oakes as an expert exceeded the limits of the science and ought not to have been admitted.

II. Materiality of Newly Discovered/Available Evidence

To secure a new trial, Perrot must not only show that there is newly discovered scientific evidence excluding Oakes' opinions, he must also show that the excluded evidence constituted material evidence for purposes of a new trial. Cowels, 470 Mass. at 617-618; Commonwealth v. Shuman, 445 Mass. 268, 272 (2005). The materiality test examines whether the inadmissible opinions of Oakes were "a "real factor" in the jury's deliberations such that its elimination would cast real doubt on the justice of [Perrot's] conviction." Cowels, 470 Mass. at 618,

quoting Sullivan, 469 Mass. at 350. Otherwise stated, did the inadmissible testimony of Oakes “play an important role in the jury’s deliberations”? Cowels, 470 Mass. at 618.

It is useful to begin this examination by summarizing the types of evidence admitted at Perrot’s trial. This examination consists of two parts: first, identifying the direct and circumstantial evidence, and second, identifying, for each category, the exculpatory and inculpatory evidence.

Direct evidence about the assault came from one witness, the victim. She was the only witness who observed her attacker. Circumstantial evidence came from two sources: one, the blood, the hair, and the gloves found at the crime scene, and two, the unrecorded statement allegedly made by Perrot.

As to the attacker’s identity, the direct eyewitness evidence largely exculpated Perrot. The circumstantial evidence inculpated him to various degrees with much of its persuasive force relating to its aggregate effect. While the inculpatory force of the blood, gloves and partial admission was diluted by internal limitations and external conflicts, the hair evidence generally survived impeachment efforts.

A. Direct Evidence

Prekop observed the attacker with particular attention paid to the hair on his head and the hair on his face. The memories and words she used to describe the hair on her attacker’s face and the hair on his head presented physical features exculpating Perrot as her attacker. Within ten days of the rape, she observed Perrot in a live-lineup. He had a mustache, a goatee and a lot of unruly hair on his head that fell over his ears. He failed to remind her of her attacker. She looked at the others, all of whom had mustaches, none of whom reminded her of the attacker.

At trial, Prekop provided a series of answers about her attacker's head and facial hair. She described the hair on his head as "black wavy hair," that "wasn't too long," and "wasn't hanging way down over his neck." Her attacker looked like someone who "went often to a barber shop." As to the individuals that she saw in the lineup, she said that "all those individuals looked like they needed a haircut." She added that the individuals in the lineup "look[ed] like their hair had never been combed. . . . They looked like some kind of tramp." She could not say though that her attacker's hair was "freshly cut."

She testified about the hair on her attacker's face. When asked by the prosecutor if she had observed "a mustache or beard," she replied, "No. His face was clean."

During cross-examination, Ferrara showed Prekop a photograph of the men from the lineup, and pointing out Perrot, asked if he was the man who had assaulted her. Prekop replied, "How can I say it was when this man has a mustache and a beard?" She then stated that the "fellow didn't have any beard. He didn't have any mustache." With respect to the length of the assailant's hair, Prekop said that no one in the lineup "had hair on that order." She told the jury that none of the men she saw in the lineup "made [her] think of the man who I thought assaulted me."

B. Circumstantial Evidence

1. Perrot's Admission

The interrogation of Perrot which lead to his confession regarding the November 30 events began around 4:30 a.m. on December 7, after a night of heavy drinking and drug use by Perrot. The police interrogated Perrot at 4:30 a.m., 7:30 a.m., 12:30 p.m., and 3:00 p.m. At the 3:00 p.m. interrogation, Perrot signed a statement admitting to breaking and entering 33 Covell

Street and 27 Malibu Drive. Perrot denied any assault; he said he just wanted the woman's money. While Perrot was given lunch and allowed to make phone calls and go to the bathroom after the 12:30p.m. interrogation, there is no evidence suggesting that he was able to sleep at all on December 7. At the 3:00p.m. interrogation, Detective Jarvis noted that Perrot got very upset during the questioning, requesting a gun so that he could blow his brains out. None of Perrot's statements or actions were preserved by audio or video recorders.

Did Perrot's denial of assaulting Prekop conflict with Prekop's memory of what happened? Prekop testified that between 3:00 and 4:00 a.m. she heard Scuffy, her cocker spaniel, "barking." She got up from bed and went to the kitchen door. She opened the kitchen door and listened for a couple of minutes. Hearing nothing, she turned around and closed the kitchen door. She walked into the living room where she took a seat and listened for a few minutes without hearing anything.

She and Scuffy returned to the bedroom. On the way, Prekop picked up a "little stick." After returning to bed, she heard someone come into the house; she jumped out of bed, grabbed the stick, and ran to the kitchen. She put on the kitchen light and saw a man standing there with his hands over his face. She used her stick to hit him on the head. Taking his hands away from his face, the man took away the stick. For two to three minutes, the man facing Prekop pushed her into the bedroom where he punched Prekop in the eye, broke the lamp, and assaulted her.

Turning to Perrot's statements, he said that on the night of November 29, he, Bob Timmerman, Jeff Atkinson and Mike Edwards drove up to Brattleboro, Vermont. On the way to Vermont, the group had drank "about a case of Bud" and he had taken two "purple mescaline" pills. Until the early morning hours of November 30, they were drinking at a bar. At about 2:15

a.m., the group headed back to Springfield.

About 3:15 a.m., Edwards dropped Perrot off at his house. Wearing his sister's gloves, Perrot went to 33 Covell Street. There he broke into the house and stole a handbag that he discarded "a few houses down the street."

He walked over to 27 Malibu Drive where he opened a breezeway door and kicked the side door in. He started to walk through the house when he heard a dog "barking." He ran out the side door.

Perrot's statement in many ways matched Prekop's independent statement. She said that between three and four in the morning, she heard her dog barking. The barking caused her to go to the kitchen door where she listened without hearing anything. It was not until minutes later that another noise made her go back to the kitchen where she confronted the intruder whose head of hair had a shape that signified constant trips to a barber. She saw the black, wavy, groomed hair on his head and his hairless face as he used his hands to push her into the bedroom.

Perrot had a lot of hair on his head and face. That night, Perrot had been in the company of three men whose faces and heads were invisible to the jury. Was it the case that Perrot and another or others in need of money entered 27 Malibu? Was it that the dog barking caused them to flee and that one of them who had a groomed head of hair and a face "clean" of any mustache, beard or goatee, returned to 27 Malibu where he beat and raped Prekop?

While the above version of events presents questions, it may by no means be quickly dismissed. Nor can Perrot's emotional reaction to Prekop's rape be automatically assigned to his feeling of guilt for raping her. It may be reasonably argued that Perrot's crying and wish to end his life represented his feelings of guilt for participating in the break-in that allowed the rape to

happen. It must be observed that while Perrot admitted to several crimes, he always denied touching Prekop. Close examination of his statements and the statements made by the victim support his refusal to admit to any assault.

Through a contextual examination of Perrot's statements, the jury would have had reasonable doubts on the statement's proof of Perrot's guilt for assaulting Prekop. Without that inculpatory evidence, the other evidence that inculpated Perrot amounted to the gloves, the blood and the hair.

2. Gloves

Prekop testified that she failed to find the gloves "until two or three hours . . . after [she] got home" In so testifying, Prekop denounced a police report indicating that when the police first arrived, she noticed a pair of gloves that were not hers at the foot of the bed.

Sergeant Kelly testified that he found one of the gloves on the bed and one at the foot of the bed. Sergeant Kelly testified that he had gone to Westcott's house and that, at that time, she had identified the gloves as belonging to her. Despite Sergeant Kelly's statement that Westcott identified the gloves as hers, Detective Jarvis testified that he had taken the gloves to Perrot's girlfriend's home where she stated that the gloves did not belong to her.

At trial, Westcott testified that she never identified the gloves as belonging to her. According to Westcott's trial testimony, she did not recognize the gloves as hers, but rather believed that they belonged to Perrot's girlfriend. Westcott's testimony about the gloves belonging to her brother's girlfriend coincided with Detective Jarvis' testimony that he had taken the gloves to Perrot's girlfriend but that she had failed to identify them as hers.

3. Blood

The police stated that they found blood stains on a bed sheet taken from Prekop's bed. Prekop questioned how that was possible as the assault took place on the floor and not the bed. She testified that there was only one blood stain on the bed, near the top of the bed, and that it had been there for 14 or 15 years.

William Eubanks, a forensic examiner of blood, testified about the relationship between the blood found on the bed sheet and Perrot's blood. The blood produced two enzymes and two serum proteins for analysis. Eubanks found that the PGM, the EAP, the Hp, and the Tf testing results from the bed sheet were the same as the results from the testing of Perrot's blood. Thus, he concluded that he could not exclude Perrot as the source of the blood on the bed sheet.

When asked about the percentage of the population that would have each of the four blood characteristics he found, Eubanks said that looking at that in the aggregate produced the conclusion that eight percent of the population would have all four of those characteristics. On cross-examination, Eubanks conceded that the percentages could be off by plus or minus five percent depending on the region.

4. Oakes' Testimony

Oakes' testimony linked Perrot to the assault in Prekop's bedroom through his comparison of Perrot's hair and a hair found on a bed sheet from Prekop's bedroom. Oakes' testimony's effect on the jury requires consideration of his testimony as a whole and the court specifically considers how certain parts of his testimony related to other parts and what

conclusions the jury could have drawn from his testimony.²⁵

Oakes essentially told the jury that the hair from Perrot's head was "microscopically indistinguishable" from the hair taken from the bed sheet. Oakes stated that he looks at microscopic characteristics of hair that "make that hair somewhat unique." He likened his comparison of hair to identification of a human face in that one can detect "subtle differences" in both that allow for recognition. When asked whether hair analysis is like fingerprint analysis (that is, fingerprints can be a basis for absolute personal identification), Oakes answered no, but added that during his ten years of experience, "it is extremely rare that I will have known hair samples from two different people that I can't tell apart." He testified that if a question hair is microscopically indistinguishable from a known hair, he will conclude that the question hair is consistent with coming from the individual with the known hair. Regarding this case, Oakes conducted a side by side microscopic examination of Perrot's hair with the hair from the bed sheet and he could not see any differences. Specifically, he found that both hairs had all the same microscopic hair characteristics arranged in the same way such that he could conclude that the hair from the bed sheet was consistent with coming from Perrot.

These pieces of testimony, when considered together, provided the jury with the understanding that the "matching" of the hair on the bed sheet to Perrot's hair constituted a near certain identification of the single hair on the bed sheet as Perrot's hair. Use of the identification of the face as an analogy would reasonably mean to the jury that Oakes' comparison of the hair

²⁵ The court notes that the purpose of the current standard jury instructions on expert testimony is "primarily to remind the jury that they are the sole judges of credibility, and to counteract the possibility that designation of a witness as an expert might create the impression among the jury that they may not disbelieve the witness's testimony." Commonwealth v. Richardson, 423 Mass. 180, 185 (1996).

resulted in the identification of Perrot's hair as being the hair found on the victim's bed. The analogy would have caused the jury to see the matching of the hair as being superior to an eyewitness testifying to seeing Perrot in the victim's bedroom. The jury would view the chance that it was someone else's hair on the bed sheet as "extremely" rare, amounting to a slight possibility. Because of the facial analogy, the jury could well see that possibility as taking the form of Perrot's identical twin being in the bedroom. Combined with the blood evidence, Oakes's hair opinions presented enormously influential testimony.

C. Prosecutor's View of the Evidence

It is telling that, in his opening statement to the jury, the prosecutor stressed that Perrot had left something behind. He identified those traces as the gloves, blood and hair.

In his closing argument to the jury, the prosecutor emphasized the consistency of the hair found on the bed to the hair taken from Perrot's scalp. He reminded the jury about Oakes' testimony that "it was in his experience, over 10 years doing thousands of these tests, it was very rare, very rare to ever find two hairs from different people that he couldn't tell apart." The prosecutor then framed the following rhetorical question: "Would an expert disagree [with Oakes' opinion]?" He reminded the jury of Oakes' assertion that if "somebody had the [same] amount of training and experience, not one of them would disagree with my opinion in this case." Vottero linked up the hair to the blood by this artful phrasing "[i]magine that eight percent blood, somebody else with hair that matches him."

D. Conclusion

This court, based on an analysis of the evidence in its entirety, determines that Oakes' testimony that exceeded scientific standards amounts to evidence satisfying the materiality

standard. The case brought by the government failed to rest on identification testimony from the woman who had been attacked. Rather, Prekop provided evidence contradictory to the conclusion that Perrot had assaulted her.

The gloves, the one piece of blood, and the one single hair found at the scene, failed to make up for the victim's striking image of an attacker without a mustache, without a goatee, and whose scalp hair had the markings of regular attendance at a barbershop. George Perrot was not the man whose face was hairless and whose scalp hairs looked groomed.

Nor does the partial admission fill the breaches. While it was certainly inculpatory as to Perrot's involvement in the break-in, its meaning on the identity of the assailant arguably supported Perrot's innocence.

The finding of materiality constitutes a strong finding. It is not a close call; it is a determination that recognizes the strength of the inadmissible statements and opinions that Oakes conveyed to the jury, and recognizes that without that evidence, the Commonwealth's claims of Perrot's violence were open to several lines of attack conducive to the creation of reasonable doubt.

III. Finality

The Commonwealth's Memorandum in Opposition to Defendant's Motion for a New Trial sets forth the doctrine of waiver and the interest in finality as a basis to deny entry of a New Trial Order. Its argument relies on a series of cases, including Commonwealth v. Chase, 433 Mass. 293, 297 (2001). While the language cited by the Commonwealth accurately describes the Chase court's concern with "piecemeal litigation," the brief omits other statements emphasizing that the doctrine of waiver provides for an exception where the claim had "no legal support at the

time of [the defendant's] trial and appeal." Id.

This court has found that at the time of Perrot's trial, the claims about hair evidence's limitations lacked legal support. The Commonwealth's brief fails to cite a case that, in 1992 to 2008, endorsed the principles of science found in the NAS report issued in 2009. Back in 1992, the limitation principles tied to hair evidence that now enjoy a consensus, were not "sufficiently developed . . . to afford [Perrot] a genuine opportunity to raise [objections to Oakes' unreliable opinions]." DeJoinville v. Commonwealth, 381 Mass. 246, 248 (1990).²⁶

IV. Ineffective Representation

Proof of ineffective representation requires two showings, both of which are indispensable: (1) counsel's performance fell "measurably below that which might be expected from the ordinary fallible lawyer" and, (2) that such conduct "likely deprived the defendant of an otherwise available, substantial ground of defence [sic]." Commonwealth v. Saferian, 366 Mass. 89, 96 (1974). As to the first element of ineffective representation, the defendant makes three claims: the first assumes that the "scientific limits of hair microscopy were known and discoverable at the time of trial" and asserts that Perrot's counsel was ineffective for failing to raise an "otherwise available, substantial ground of defence [sic]." Commonwealth v. Adams, 374 Mass. 722, 727 (1978), quoting Saferian, 366 Mass. at 96.

A close reading of Adams in the context of the instant case fails to support the defendant's argument. In Adams, the court stressed that review of an ineffective representation

²⁶ As the science behind evidence changes, the courts have been willing to adopt NAS findings and change the law according to the new scientific developments. See Commonwealth v. Cameron, 473 Mass. 100, 104-111 (2015) (DNA evidence); Commonwealth v. Wadlington, 467 Mass. 192, 204-205 (2014) (fingerprint identification); Commonwealth v. Heang, 458 Mass. 827, 848-849 (2011) (ballistics evidence); Pettus v. United States, 37 A.3d 213, 226 (D.C. Cir. 2012) (handwriting analysis).

claim necessitates “a discerning examination and appraisal of the specific circumstances of the given case to see whether there has been serious incompetency, inefficiency, or inattention of counsel” Id. It was observed by the court that, where the claim raises bad judgment, the defendant must establish that the judgment was “so manifestly unreasonable as to be unprotected by the labels of ‘trial strategy’ or ‘trial tactics.’” Id. at 728 (internal citation omitted).

This court recognizes that, in 1982, Barnett and Ogle criticized forcefully the probabilistic findings issued by Gaudette.²⁷ Their criticism failed to disturb the forensic community’s acceptance of the value of Gaudette’s statistical studies. As previously discussed in the memorandum, Gaudette’s studies enjoyed substantial acceptance.

Perrot’s counsel wisely retained Ziolkowski to advise him on how to approach Oakes’ expected testimony. Aware of the forensic literature on the statistical significance of hair evidence, she prudently omitted any advice to inquire into Oakes’ understanding of the degree of chance that someone else’s hair had the same characteristics as the hair on Perrot’s head and the hair on the victim’s bed sheet. The decision to forego examination of Oakes on the basis of his use of words such as “rare,” “strong association,” or his use of the analogy of a human face, constituted a judgment that derived from a knowledge of the state of hair evidence in 1992. It fails to fit the description of a judgment so “manifestly unreasonable.” Id.

The second claim asserts that defense counsel was ineffective because he failed to call

²⁷ Karen Kafadar, defendant’s expert, located the Barnett and Ogle article during her search of the forensic literature. She classified the criticism as “primarily a methodological critique aimed at Gaudette’s use of idealized scenarios, subjective selection of features, questionable treatment of the data and possible examiner bias” She noted that the Barnett and Ogle article failed to suggest “that population frequency databases and reference pools were necessary for conclusions from hair analysis.” This jurist disagrees. The Barnett and Ogle article outlined a scientific methodology that generally resembles the model endorsed by Kafadar. The court notes that the record fails to establish any other article that specifically supported Barnett and Ogle’s strong objection to Gaudette’s probability estimates.

Ziolkowski as a witness. “Whether to call a witness is a strategic decision.” Commonwealth v. Morales, 453 Mass. 40, 45 (2009), citing Commonwealth v. Britto, 433 Mass. 596, 602 (2001). “An attorney’s tactical decision amounts to ineffective assistance of counsel only if it was manifestly unreasonable when made.” Commonwealth v. Martin, 427 Mass. 816, 822 (1998), citing Commonwealth v. Roberts, 423 Mass. 17, 20 (1996). The decision to forego calling Ziolkowski derived from defense counsel’s judgment that in cross-examining Oakes, he had developed enough doubts about the reliability of hair evidence and the deposit of the hair on Prekop’s bed sheet. That judgment to forego calling Ziolkowski may not have been the view of another attorney. That judgment though was not one that was “manifestly unreasonable” or arose out of inattention or lack of preparation. Review of defense counsel’s examination of Oakes, and his opening and closing statements, reveals his knowledge of hair evidence, including its limitations.

The third claim asserts that defense counsel was ineffective in his failure “to file a timely motion that would have allowed Ziolkowski to have actually performed a microscopic examination.” The failure to ask for relief so Ziolkowski could use her microscopic equipment to look at the hair evidence warrants attention. Without that relief, defense was deprived of knowing what a microscopic examination conducted by his expert revealed.

Defense counsel filed a motion requesting that the hair taken from the bed sheet and “representative hairs taken from George Perrot” be delivered to K-Chem Laboratories for Ziolkowski’s inspection. The motion asserted that Ziolkowski could not make a proper inspection of the hair sample with a portable microscope at the courthouse. The court allowed the request to inspect, but designated the courthouse or the police station as the site of inspection,

rather than at K-Chem's Boston Office. As stated by defense counsel in his motion, and as found by the court, Ziolkowski could not examine the hair at those locations because her microscopic equipment was not portable.

Ziolkowski never examined the hair. Nor does the record indicate that defense counsel urged the court to reconsider.

The question of whether the timing of the motion amounted to ineffective representation requires a discerning examination and appraisal of the circumstances that applied to this case. In a brief period, defense counsel retained Ziolkowski and reviewed a formidable record pertaining to the investigation, as well as reviewing the work of prior counsel and trial transcripts.

Ferrara had already secured one continuance in his incarcerated client's case that originated in 1985. With trial imminent, he secured the court's approval for Ziolkowski's examination of Perrot's representative hairs and the hair found on the bed sheet. The order, though contrary to the motion, required that the examination occur in Springfield. Because of Ziolkowski's lack of portable microscopic equipment, she was unable to conduct the examination.²⁸

While one may suggest that Ferrara should have sought to either urge reconsideration or ask for a continuance, such requests may well have been denied. "It is not ineffective assistance of counsel when trial counsel declines to file a motion with a minimal chance of success."

Commonwealth v. Conceicao, 388 Mass. 255, 264 (1983), citing Saferian, 366 Mass. at 99;

Commonwealth v. LeBlanc, 11 Mass. App. Ct. 960, 962-963 (1981). The decision not to file a

²⁸ The Commonwealth's suggestion that the examination occurred presumably in Springfield rests on speculation and conflicts with the billings submitted by K-Chem for Ziolkowski's time. A trip to and from Springfield requires at least 2 hours.

motion may also be a tactical one, subject to the “manifestly unreasonable” standard. Conceicao, 388 Mass. at 264, citing Commonwealth v. Moffett, 388 Mass. 201, 214 n.7 (1981). The contextual examination of the omission fails to support ineffective representation.

V. Introduction of False Evidence

Without ignoring the procedural problems attaching to this claim, the defendant fails to meet his burden of proving that either the Commonwealth or Oakes engaged in a “knowing introduction of false evidence.” The defendant’s exiguous treatment of this claim reflects its lack of a foothold in the record before the court.

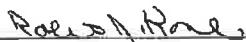
VI. Scope of New Trial Order

Perrot has moved for a New Trial on all counts of the verdict against him. This court has the authority to issue an Order for New Trial as to only certain counts of the prior verdict. “In the case of separate counts it is settled that verdicts may be set aside as to one or more of the counts and ‘leave undisturbed verdicts as to other counts.’” Commonwealth v. Burke, 342 Mass. 144, 147-148 (1961), quoting Barnett v. Loud, 243 Mass. 510, 514-515 (1923). More recently, the Appeals Court cited to Burke and held that one verdict for assault and battery was reversed, while a different verdict for assault and battery arising out of the same incident was upheld. Commonwealth v. Ortiz, 47 Mass. App. Ct. 777, 779-780 (1999). This court recognizes that there are cases where the Appeals Court has refused to set aside some verdicts and leave others undisturbed in cases where there are multiple victims. See Commonwealth v. Oliveira, 2006 Mass. App. LEXIS 1108 (Mass. App. Ct. 2006); Commonwealth v. Cogswell, 31 Mass. App. Ct. 691 (1991). In those cases, however, the Appeals Court did not state that setting aside only some verdicts is impermissible, but rather that the specific evidence in question on appeal affected the

verdicts in relation to both victims.

ORDER

Based on the above, defendant George Perrot's Motion for a New Trial is **ALLOWED** as to the convictions for the unarmed robbery of Mary Prekop, Criminal Action No. 85-5415, the indecent assault and battery of Mary Prekop, Criminal Action No. 85-5416, the aggravated rape of Mary Prekop, Criminal Action No. 85-5418, and the burglary and assault of Mary Prekop in a dwelling, Criminal Action No. 85-5420. The Motion is **DENIED** as to the conviction for the burglary of Emily Lichwala, Criminal Action No. 85-5425, because the trial judge properly charged Perrot under G. L. c. 266, § 15, which does not require assault, and Perrot admitted to breaking into the household and taking a handbag.



Robert J. Kane
Justice of the Superior Court

DATED: January 26, 2016